

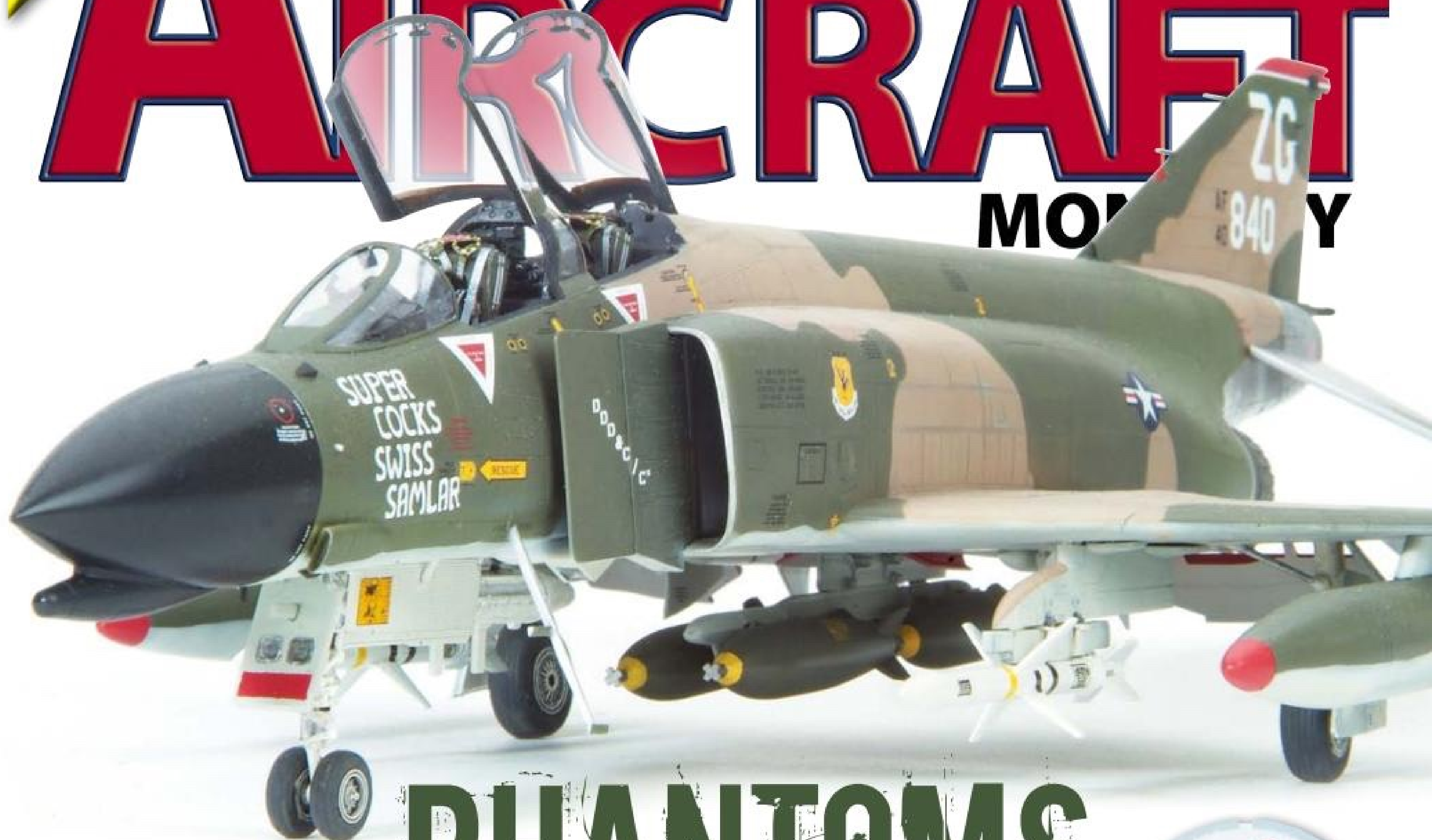
**MA
EXTRA**
RokAF F-16D Viper

EXCLUSIVE - MIG MASTERCLASS



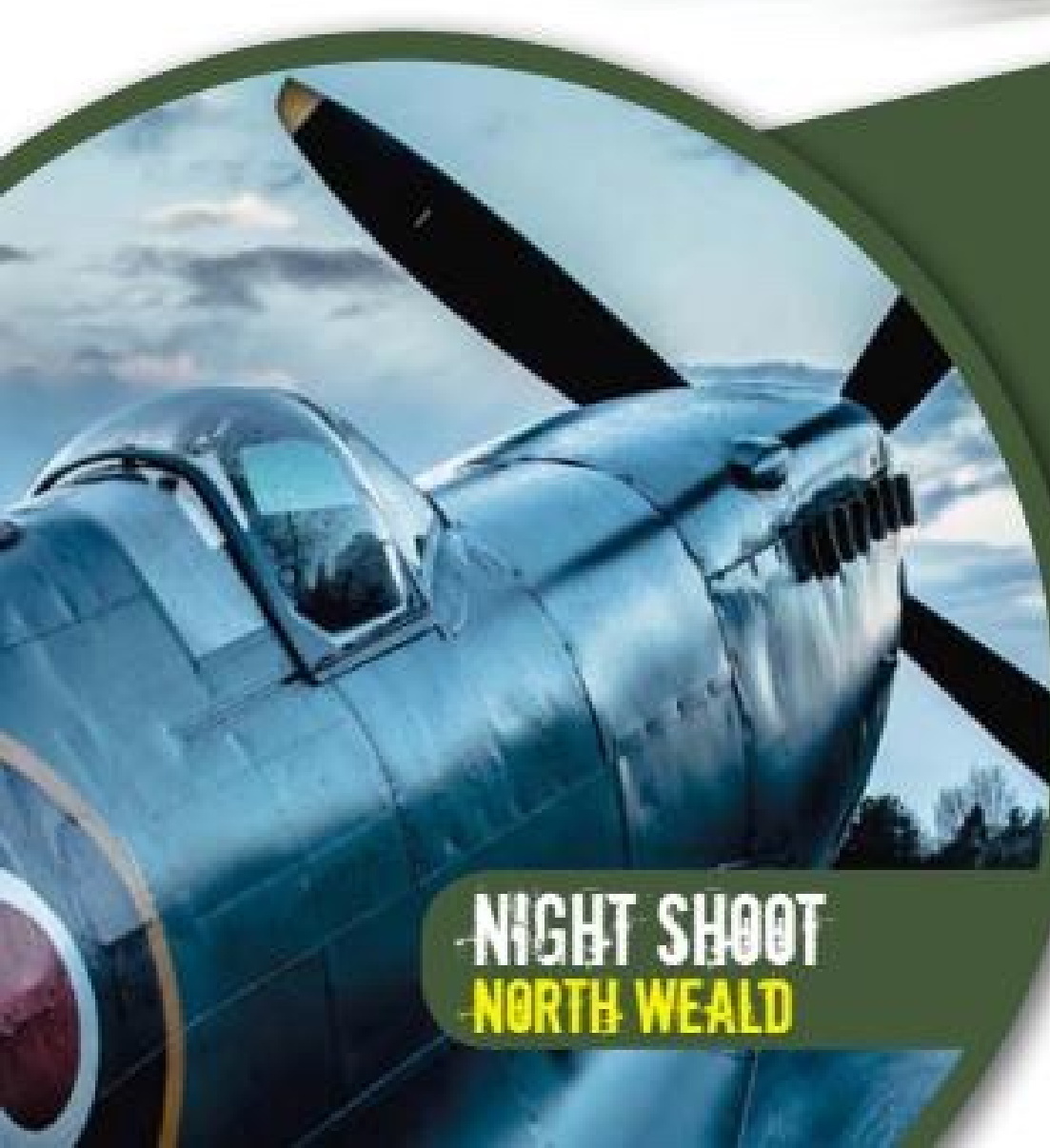
MODEL AIRCRAFT

MONTHLY



**F-4B & F-4C
Double**

PHANTOMS OVER VIETNAM



**NIGHT SHOOT
NORTH WEALD**



RED 2
FW 190 F8



GOOD GRIEF
HEINKEL HE-177



WILDCAT
TEXAN T-6A

Mission Profiles
A-29 Super Tucano

DECEMBER 2016



Vol 15 Iss 12 £4.50
Printed in UK





www.zvezda.org.ru

INNOVATIONS IN MODEL KITS

1/72

№7297

RUSSIAN NAVAL FIGHTER SUKHOI SU-33 FLANKER-D



MODEL CAN BE BUILT WITH WINGS
IN FOLDED POSITION



NEW TOOLING!



PRODUCED
UNDER THE LICENSE
OF SUKHOI COMPANY



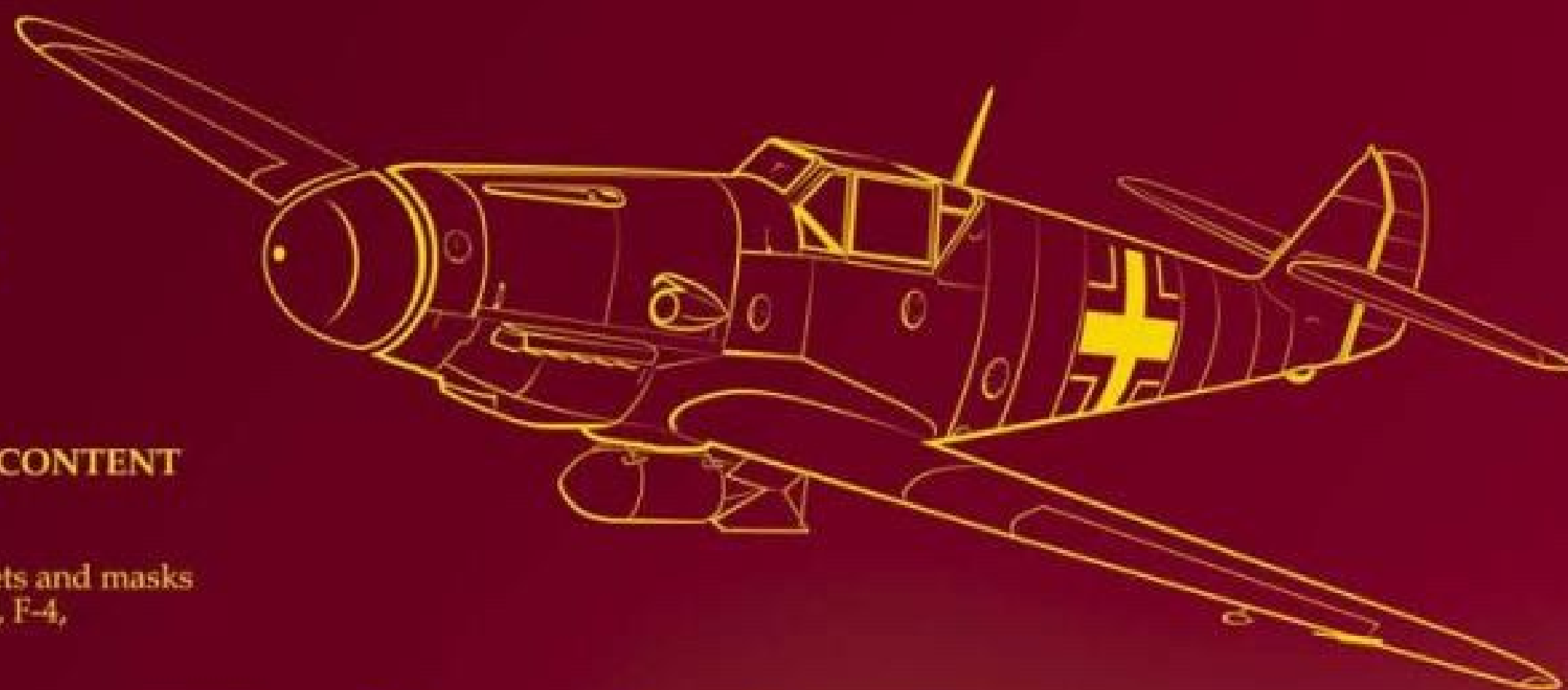
www.hobbyco.net

Zvezda Kits are distributed in the UK
by The Hobby Company Limited,
Knowhill, Milton Keynes, MK5 8PG
See the full Zvezda range at www.hobbyco.net
Zvezda models are available from good model shops

Parts:
247

Length:
30,4 cm

ROYAL CLASS



ROYAL CLASS EXCLUSIVE CONTENT

- ▶ Plastic parts, photoetched sets and masks for 2 kits in variants F-1, F-2, F-4, F-4/B and F-4/Trop
- ▶ Cartograf printed decals for 14 colorful markings
- ▶ Friedrich - beer pod (1 of 14 / random selection)
- ▶ Friedrich - Eduard Bier glass (one of six designs)

Eduard Brassin:
wheels (2 sets),
exhausts (2 sets)



Bf 109F 1/48



eduard

#R0014 @ WWW.EDUARD.COM



RARE-PLANE DETECTIVE

Since 1985!
The **GREATEST NAME** in Selling
(and Buying) Old Model Kits
for **OVER 30 Years!**

www.rare-planedetective.com

Your **ONE-STOP WEB SHOP** specializing in rare, hard-to-find and out-of-production kits from the 1950s to the Present... all at **SANE** pricing!

- **Aircraft!** • **Armor!** • **Sci-Fi!**
- **Ships!** • **Automotive!**

We carry **LOADS** of aftermarket items as well...

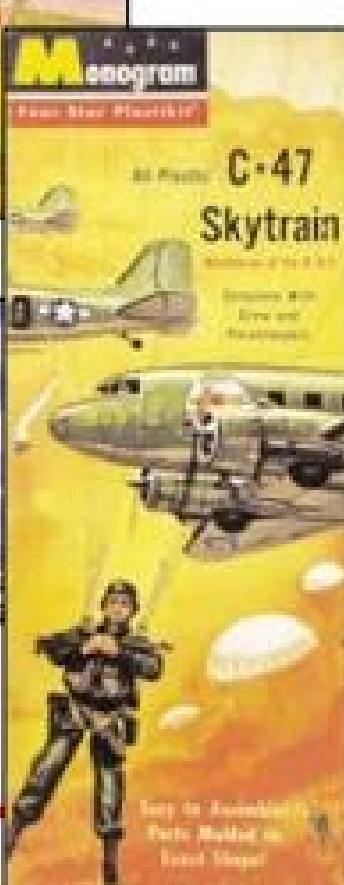
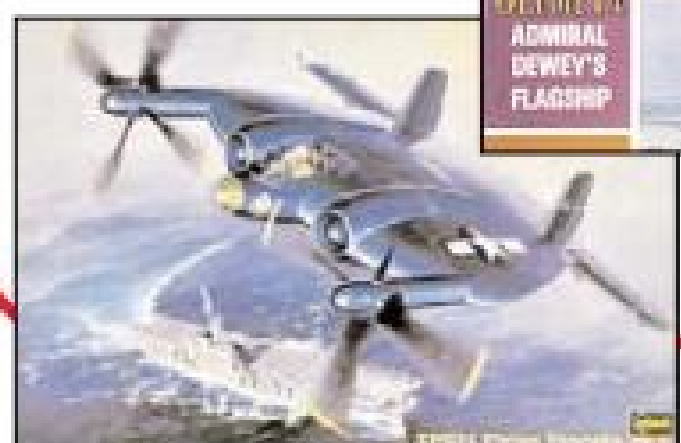
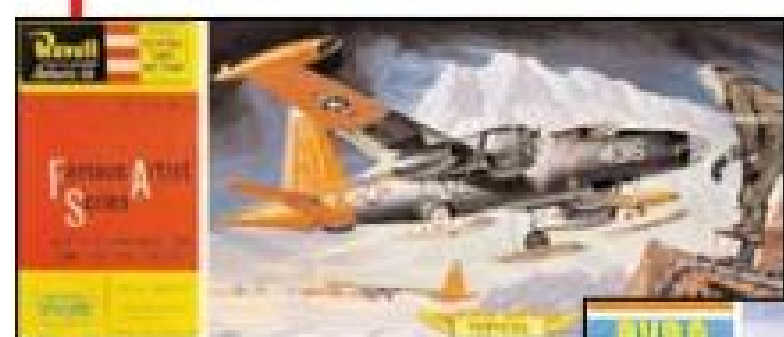
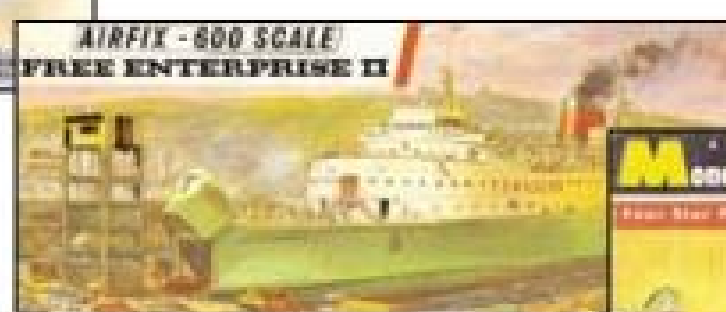
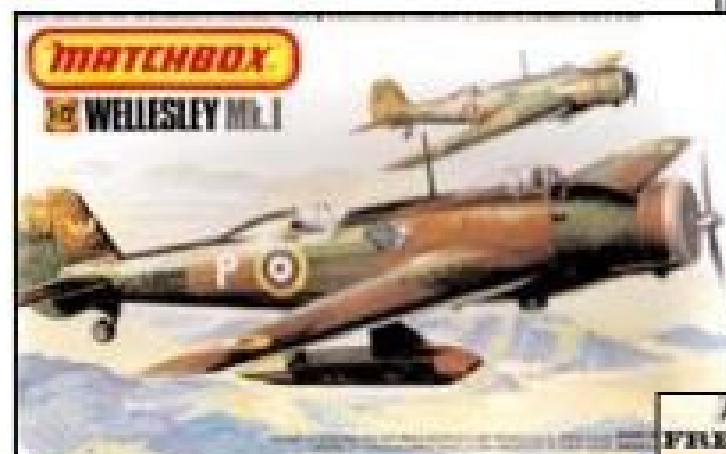
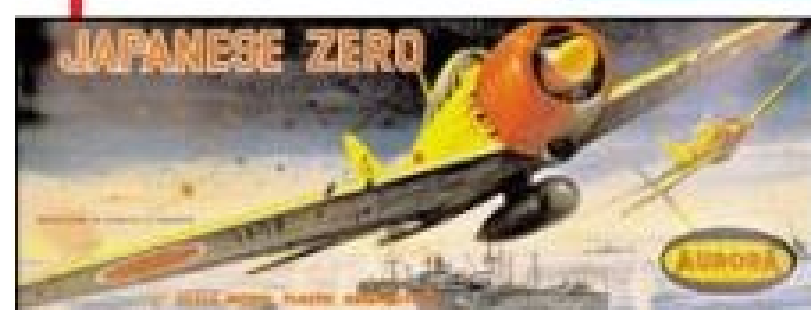
- **Decals!**
- **Resin & Photo Etch Detailing Sets!**
- **Figures & MUCH MORE!**

You always get more hobby for your money at Rare-Plane Detective!

www.rare-planedetective.com

info@rare-planedetective.com

\$10 OFF on your Web Site Order!
Check-Out **PROMO CODE: SAM10**





12 Combat Edge

F-4 Phantoms in the Vietnam War double- with builds from Sunhwie Hwang and Peter Marshall

ALBION HOBBIES

So Much To Enjoy

ts that time of year again when a modeller's fancy turns to thoughts of what can be asked of the man in the red suit with the white beard to place in your stocking. No doubt like me you will have been dropping various hints to family and friends about the type of plastic and resin you would like to see under wrapping paper, or maybe as this is the digital age, the odd text, Instagram photo or even Face-Tube post will also be used to bring such products to their attention!

Whatever happens though you can rest assured that once again in Model Aircraft we have some of the very best kit builds and references to bring you for your delectation. This month we have another eclectic mix of subjects and in particular our 'Combat Edge' feature is a subject close to my heart, with the F-4 Phantom over Vietnam. We have two exceptional builds from Sunhwie Hwang and Peter Marshall, which I hope you enjoy. You will also find a superb piece on the 1:48 MPM Heinkel He-177 from Chad Summers, and another

outstanding build of the recent 1:48 Revell Ventura from James Ashton. We also have a couple of trainers featured this month with Andy Renshaw's T-6A in the markings of US Navy unit VT-10, and Mario Serelle's South American Texan. We also have another evocative photo-feature from Neil Atterbury of Four Elements, as he takes us on a North Weald Night Shoot trip.

So I hope you enjoy all we have for this this time and as always.

Happy modelling

Andy



MODEL AIRCRAFT EXTRA

39 Model Aircraft Extra - Defenders of the South

Republic Of Korea Air Force F-16s, background, scale plans and a full model build from Sunhwie Hwang



11 Casemate Competition

Eyes All Over The Sky - Aerial Reconnaissance in the First World War

30 Absolute Zero!

James DiCesare builds the superb 1:48 Tamiya A6M5

66 'Red 2'

James Aston adds a winter finish to the 1:32 Revell Fw 190 F-8 using Alclad II Mil-Spec Enamels and Hogwash

60 Royal Air Force Ventura

James Ashton tackles the recent 1:48 Revell Mk II kit



26 Marking Time with TwoBobs - 'Texan Wildcat'

Andy Renshaw builds a 1:48 T-6A in the markings of VT-10 based at NAS Pensacola

TWO BOBS
AVIATION GRAPHICS



6 Good Grief

Chad Summers details the 1:48 MPM Heinkel He-177



24 North Weald – Night Shoot

Neil Atterbury of Four Element Photography took this atmospheric afternoon into evening images at the former Battle of Britain Air Station



34 Mission Profiles

The Embraer EMB 314 Super Tucano



48 Eyes in the Sky

Rob Ludlow builds the 1:72 Revell Shackleton AEW.2



52 Combat Zone - Battle of Britain Bomber

Anthony Tucker-Jones examines the development of the Heinkel He 111 famed for its role in 'Eagle Day'



56 Real to Replica

North American Rockwell OV-10 Bronco, with a build of the Kitty Hawk kit from Adam Challenger



70 Step by Step

Marineflieger Starfighter - Olivier Soulleys builds the 1:48 Eduard ProfiPack F-104G



74 MIG Masterclass – Weathering a South American Texan

Mario Serelle shows you 'how to' using Ammo of MIG Products





Heinkel He-177 Grief

Manufacturer: HPH

Scale: 1:48

Kit Type: Multi-media

Kit Number: 296

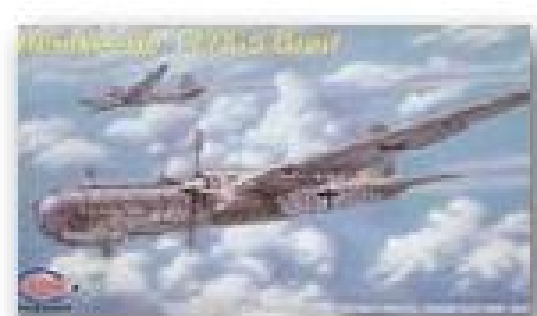
CMK Bomb Bay Set #4175

CMK Engine Set #4174

CMK Wheel Bays #4176

Aber and Eduard Guns

Montex Paint Mask #48244



Good Grief

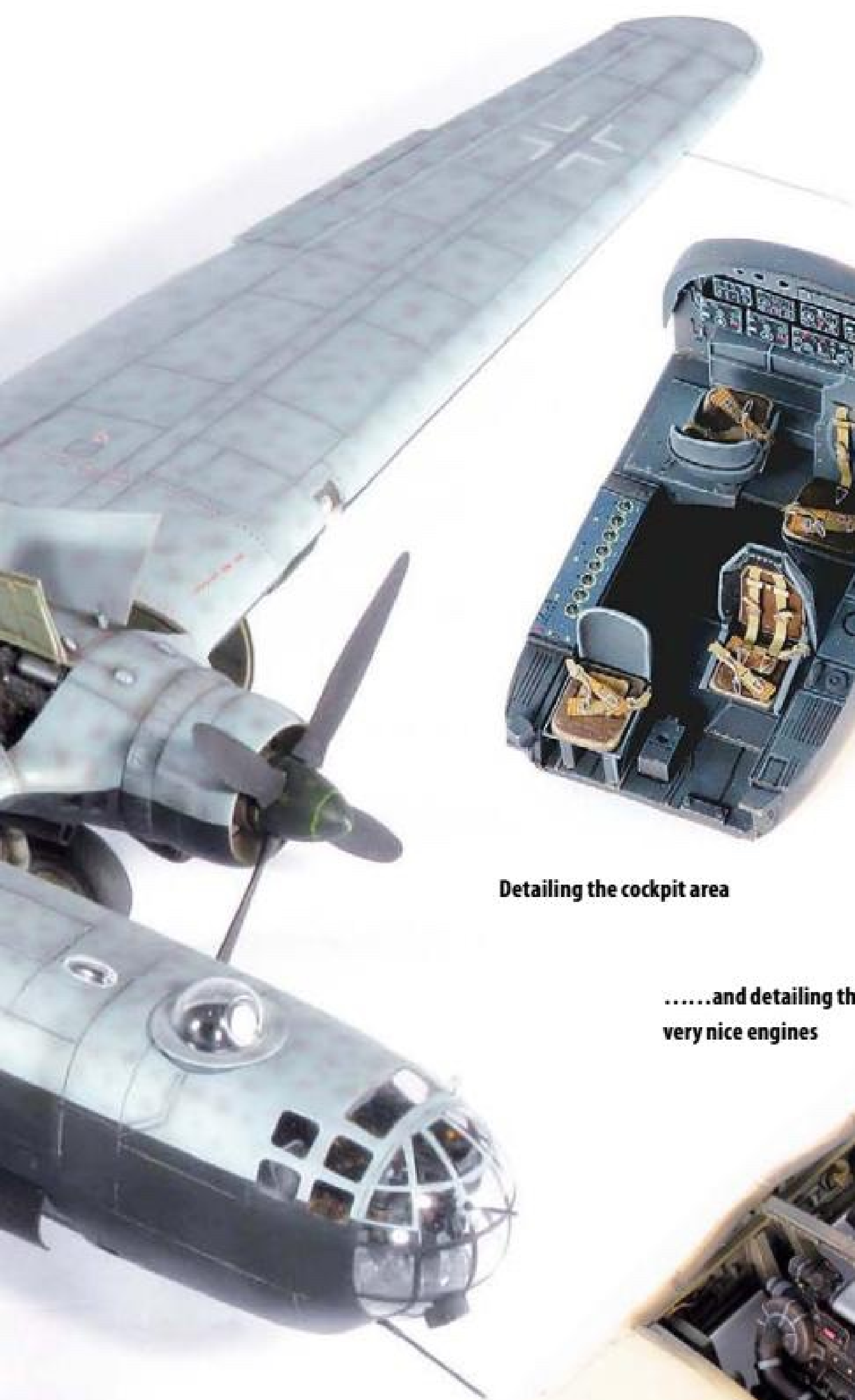
Chad Summers details the 1:48 MPM Heinkel He-177

The Heinkel He-177 was a classic example of a systems engineering problem gone wrong. It was developed in response to an aggressive set of performance and operational requirements, and to make matters worse, the design and development period was plagued by ever changing requests that seemed to be the norm as Germany attempted to respond to rapidly shifting wartime needs. To meet the performance requirements, four engines were housed in two nacelles, thereby reducing drag. To make room for the engines, traditional firewalls were removed with the dual-engine 'power packs' located directly

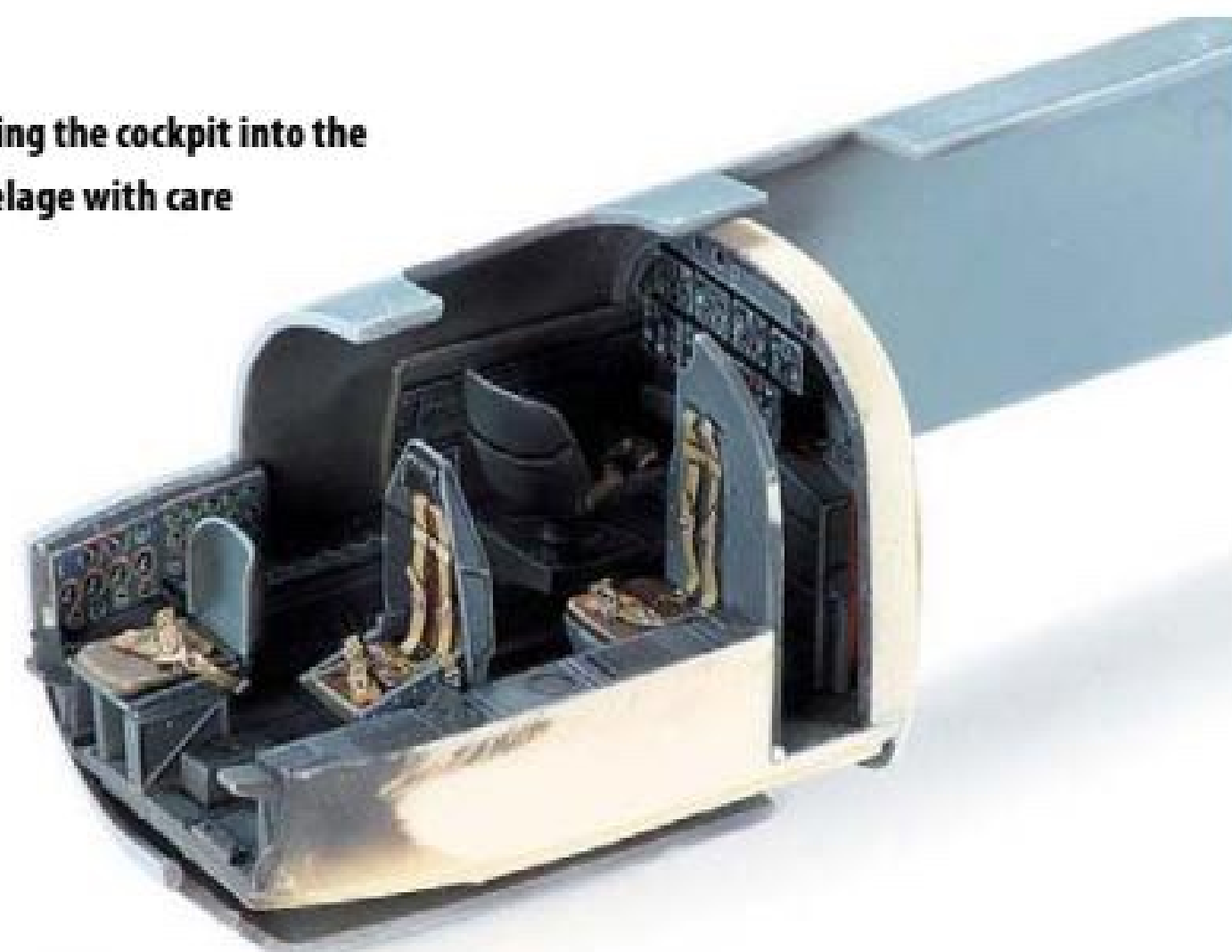
against the main wing spar. The engines were tightly cowled, again to reduce drag, but this allowed for the build-up of leaking engine oil that had the tendency to over-heat and ignite given the tightly cowled configuration. Plus, without the firewall break, the end result was often a burn through of the main wing spar and ultimate wing failure. It's no wonder that the He-177 earned the nickname 'The Flaming Coffin', and as if burning engines and failing main wing spars weren't bad enough, the design also called for the capability to perform dive-bombing in order to increase overall bombing accuracy. This put more stress on the main wing spar and also resulted in

failures. There weren't just flight performance issues, the aircraft also suffered from operational maintenance issues.

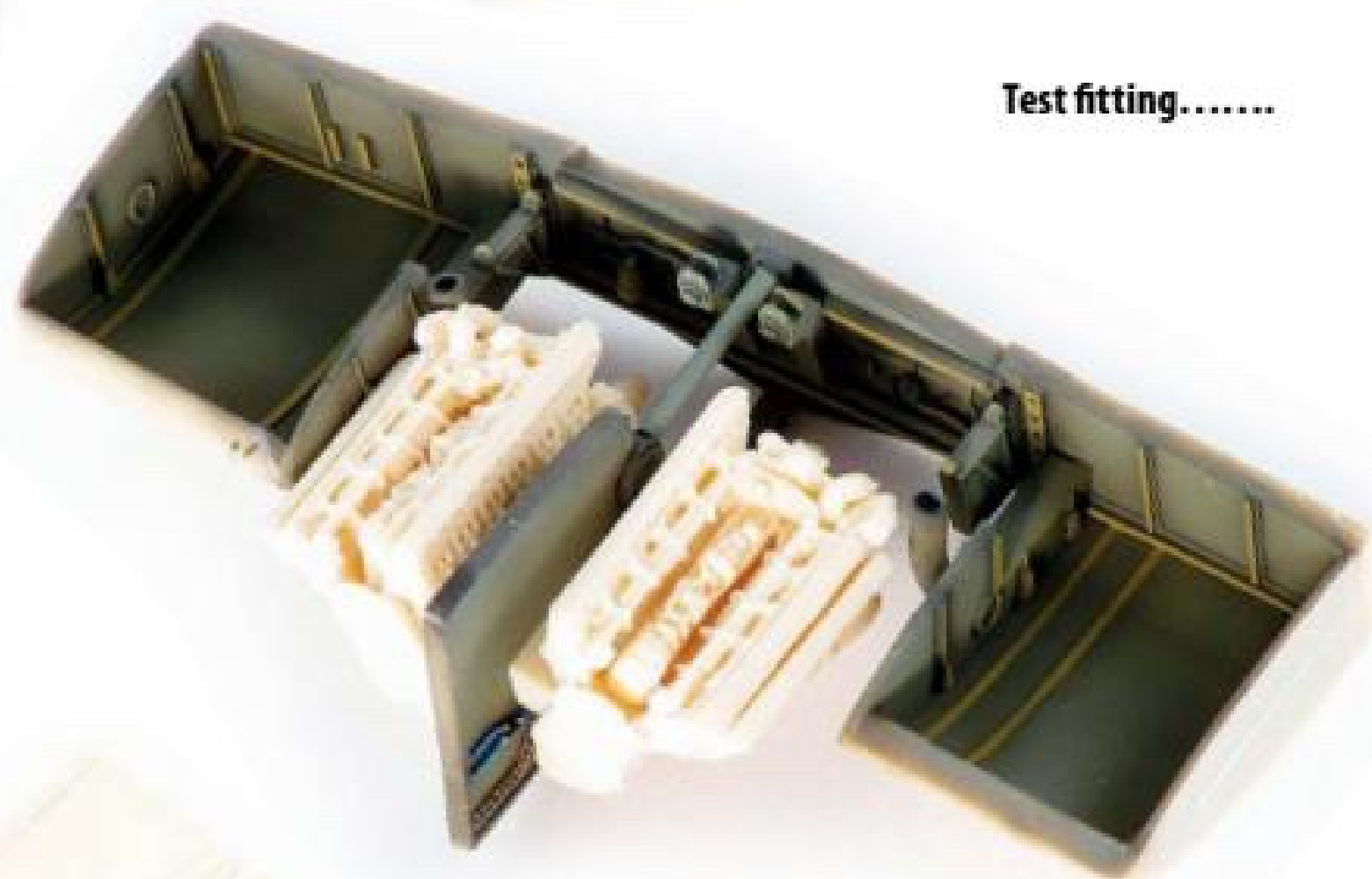
For these reasons, the He-177 is often looked upon as a failure and maybe this is why it hasn't received significant attention in the modeling world. While Revell offers a very nice 1:72 kit, I wanted a more sizeable subject, and the only kits produced in my preferred 1:48 scale are a limited run resin kit by MPM/HML and MPM's limited run injection moulded kit. I went with the latter and added some extra detail using all the available CMK sets. These include engines, bomb bay, and wheel bays. I also picked up the Nautilus



Fitting the cockpit into the fuselage with care

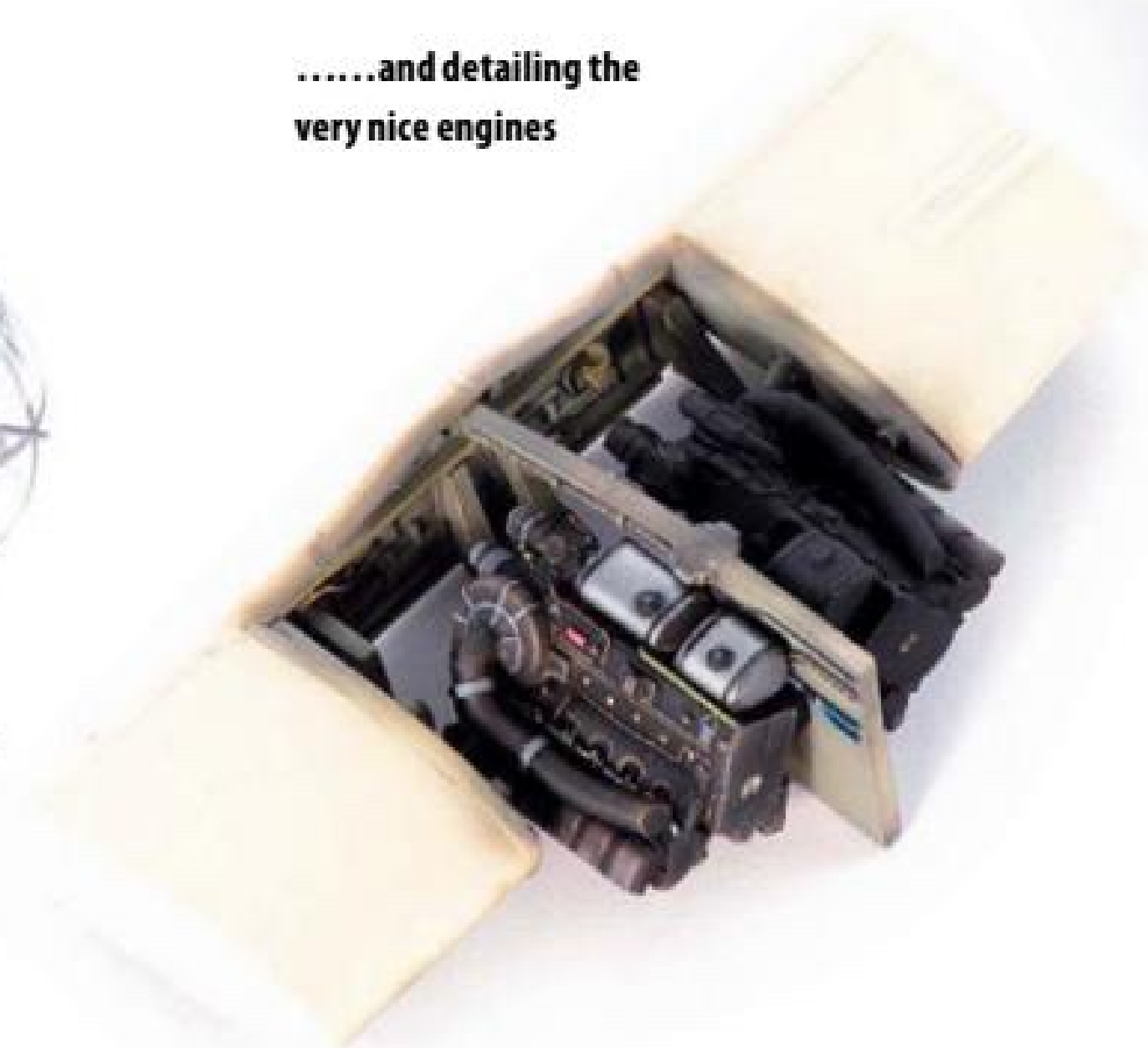


Test fitting.....



Detailing the cockpit area

.....and detailing the very nice engines



Adding details to the wings and flaps

wing brace but it's not really usable without modification if you use the CMK engine set. The detail may be a bit simplistic when compared to other aftermarket resin items produced by Aires but it more than sufficient given what can actually be seen once the model is completed. There is a little redundancy in the engine and wheel bay sets so some of the parts will not be used. MPM releases a 'standard' kit and a 'Hi-Tech' version that includes additional resin items and lots of etch. These parts are especially useful for items like the cockpit and turrets, and the only drawback is that the machine guns and cannons are produced in resin as well. The plastic ones

included in the kit lack detail and I was concerned about the resin ones breaking down the road so I decided to swap these out with aftermarket items.

As if using all the detail sets and building this limited run beast wouldn't be challenging enough, I decided to lower the trailing edge flaps with some scratchbuilt items. I started things off with the wings, which included cutting out the main gear doors and the engine access panels. I cut the trailing edge flaps from the wings and using reference material gathered from online sources, I constructed the inner flap detail for the top of each wing. The resin wheel bays were built

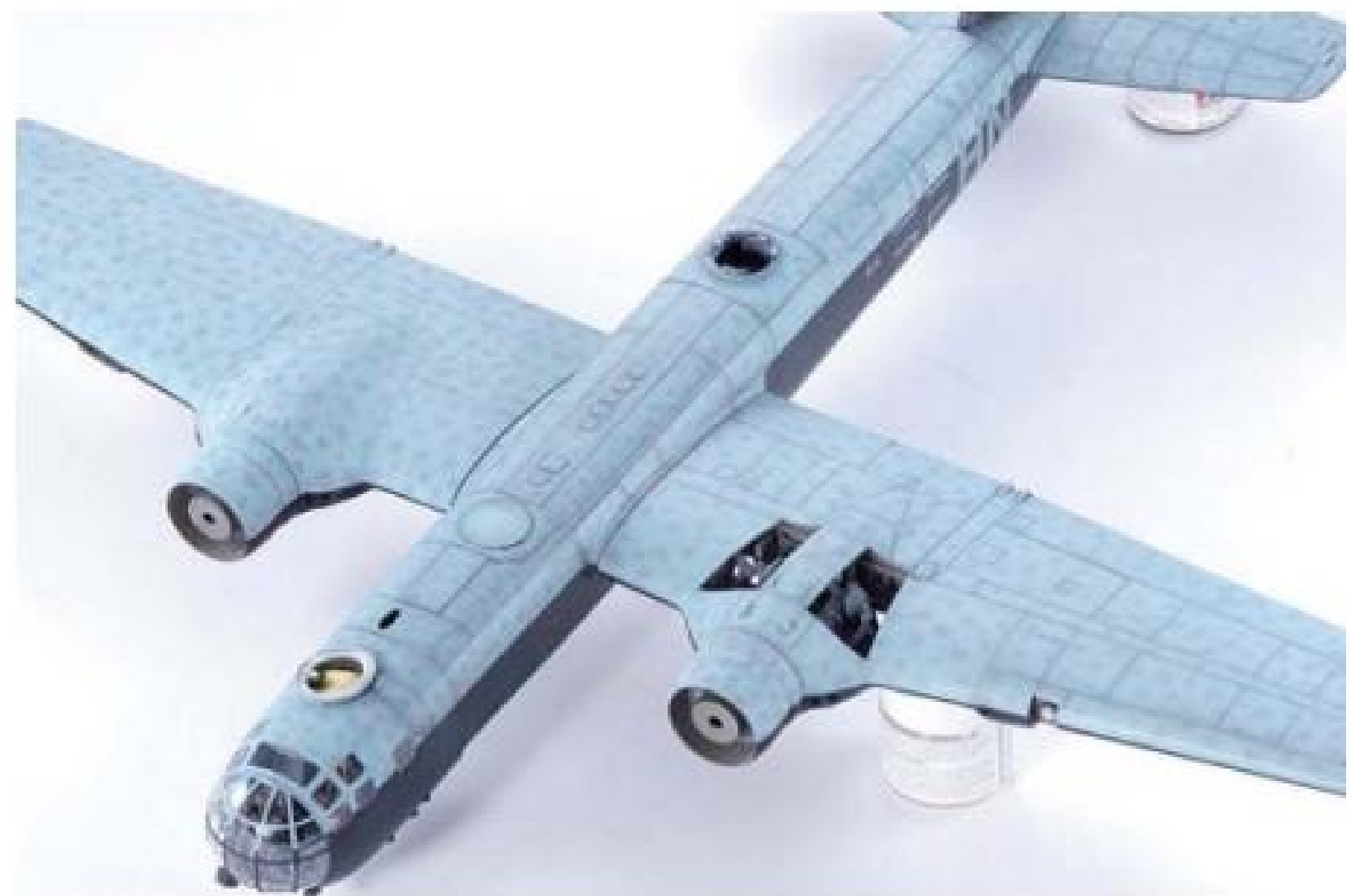
and painted, but getting them to fit properly within the kit wings is a bit challenging. The resin engine set adds a lot of detail for the port side. Both engines were painted and then installed. I probably spent too much time detailing the engines since not much is actually visible once everything goes together. The DB606/610 power system pretty much packs the space inside the nacelle/wheel bay and it's not hard to see how packaging of the power plant on the full size He-177 helped contribute to its nickname. The wing attach lugs are small and given that I wasn't going to use the Nautilus wing brace, I cut out a slot in each wing root to allow me to insert a twelve-inch brass box tube.

Fuselage construction started with removing the bomb bay sections from each fuselage half. The resin cockpit parts were assembled, painted, and all coloured etch parts installed. The extra detail parts supplied in the 'Hi-Tech'

The He-177 earned the nickname 'The Flaming Coffin'



Test fitting the wings and fuselage



Adding the camouflage is always a highlight of any build

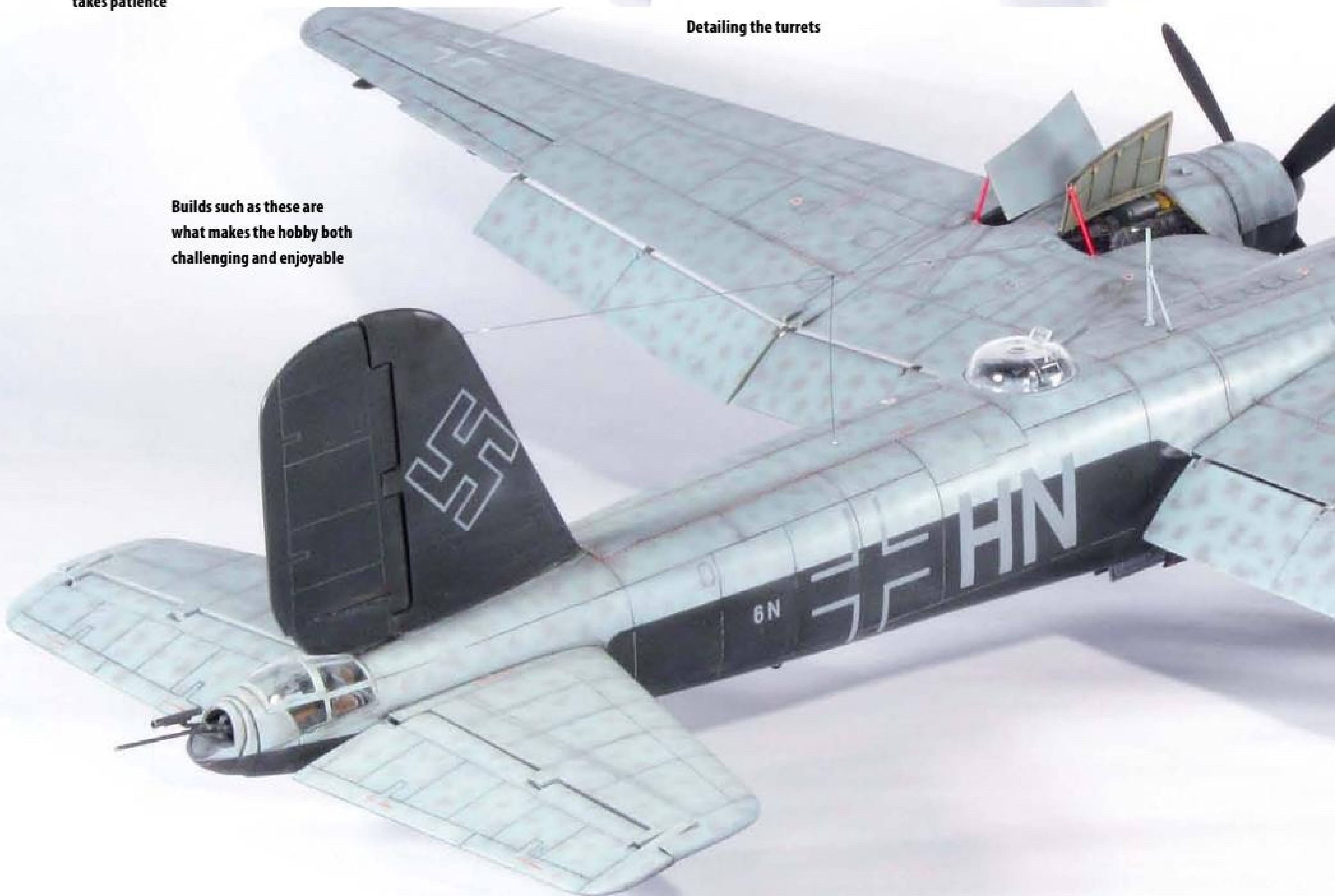


Painting in the smaller details takes patience



Detailing the turrets

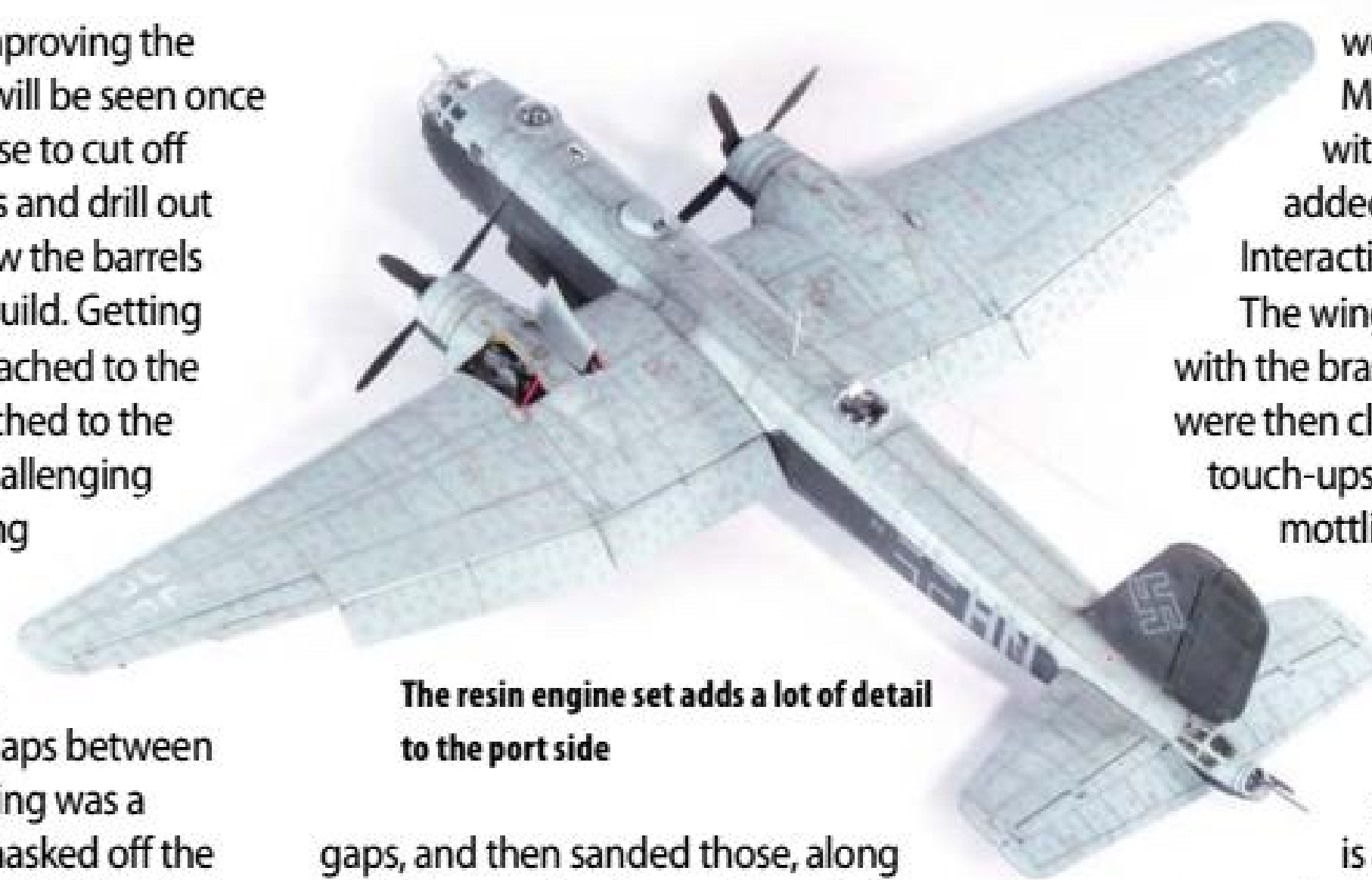
Builds such as these are what makes the hobby both challenging and enjoyable





To meet the performance requirements, four engines were housed in two nacelles, thereby reducing drag

version really go a long way in improving the look of the office, but not much will be seen once the fuselage was closed up. I chose to cut off the barrels from all machine guns and drill out ports in the gun breeches to allow the barrels to be inserted at the end of the build. Getting the etched ammunition belts attached to the breeches, and the breeches attached to the forward and rear glazings was challenging and required significant test fitting to make sure that everything was positioned correctly. The forward nose glazing fit was also a little problematic. There were gaps between the glazing the fuse and the glazing was a little oversized in a few spots. I masked off the glazing except around the fuse joint, filled in the



The resin engine set adds a lot of detail to the port side

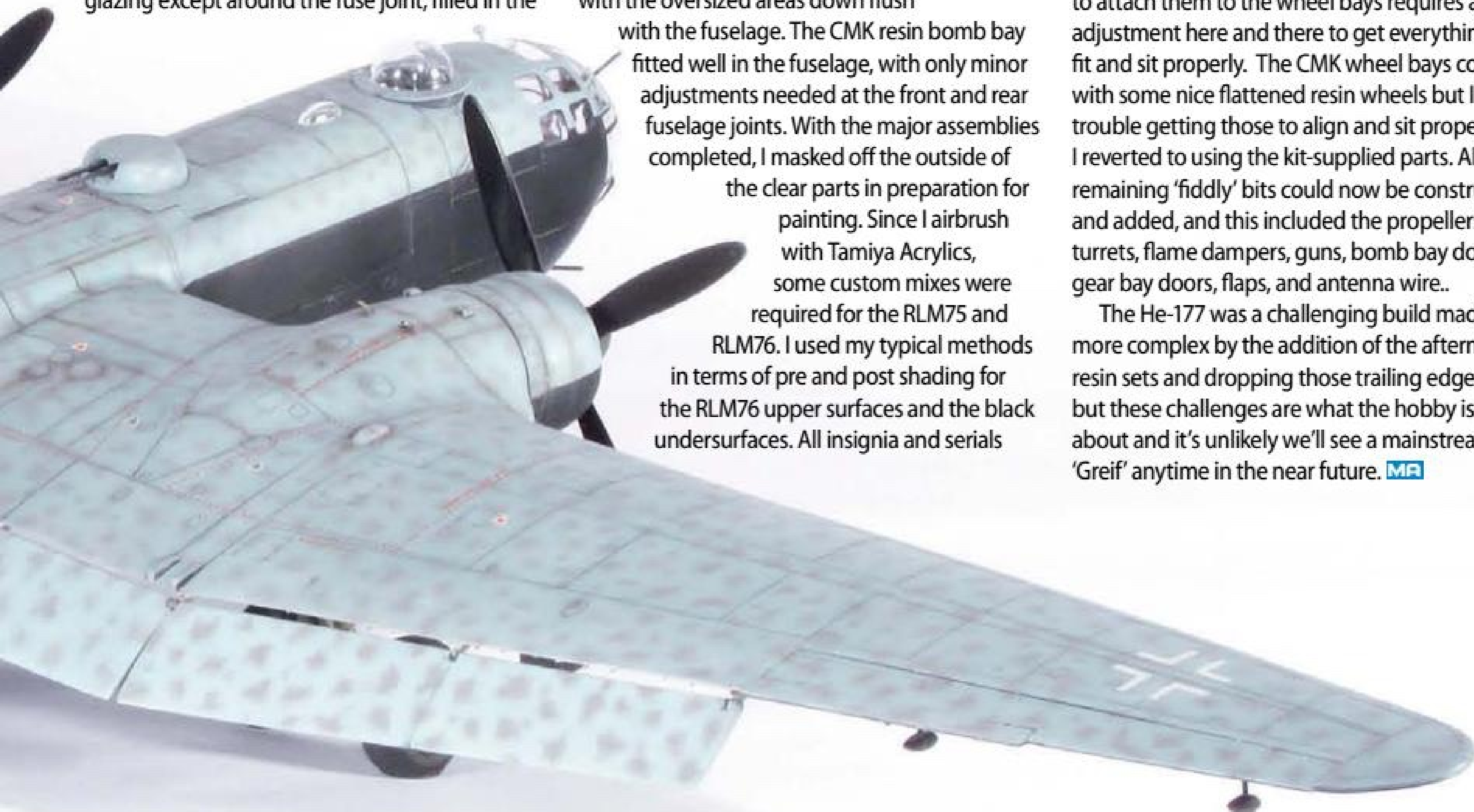
gaps, and then sanded those, along with the oversized areas down flush with the fuselage. The CMK resin bomb bay fitted well in the fuselage, with only minor adjustments needed at the front and rear fuselage joints. With the major assemblies completed, I masked off the outside of the clear parts in preparation for painting. Since I airbrush with Tamiya Acrylics, some custom mixes were required for the RLM75 and RLM76. I used my typical methods in terms of pre and post shading for the RLM76 upper surfaces and the black undersurfaces. All insignia and serials

were masked and sprayed using Montex masks. I sealed everything with a coat of clear acrylic and then added washes from the outstanding AK Interactive line.

The wings were joined to the fuselage with the brass tube epoxied in place. The joints were then cleaned up and some minor airbrush touch-ups added to blend the RLM76 and 75 mottling in these areas. One of the more challenging parts came when in attaching the four main gear legs and main wheels into the wheel bays and ensuring they all sit appropriately. The detail on the gear is a little soft and the trunnions used

to attach them to the wheel bays requires a little adjustment here and there to get everything to fit and sit properly. The CMK wheel bays come with some nice flattened resin wheels but I had trouble getting those to align and sit properly so I reverted to using the kit-supplied parts. All the remaining 'fiddly' bits could now be constructed and added, and this included the propellers, turrets, flame dampers, guns, bomb bay doors, gear bay doors, flaps, and antenna wire..

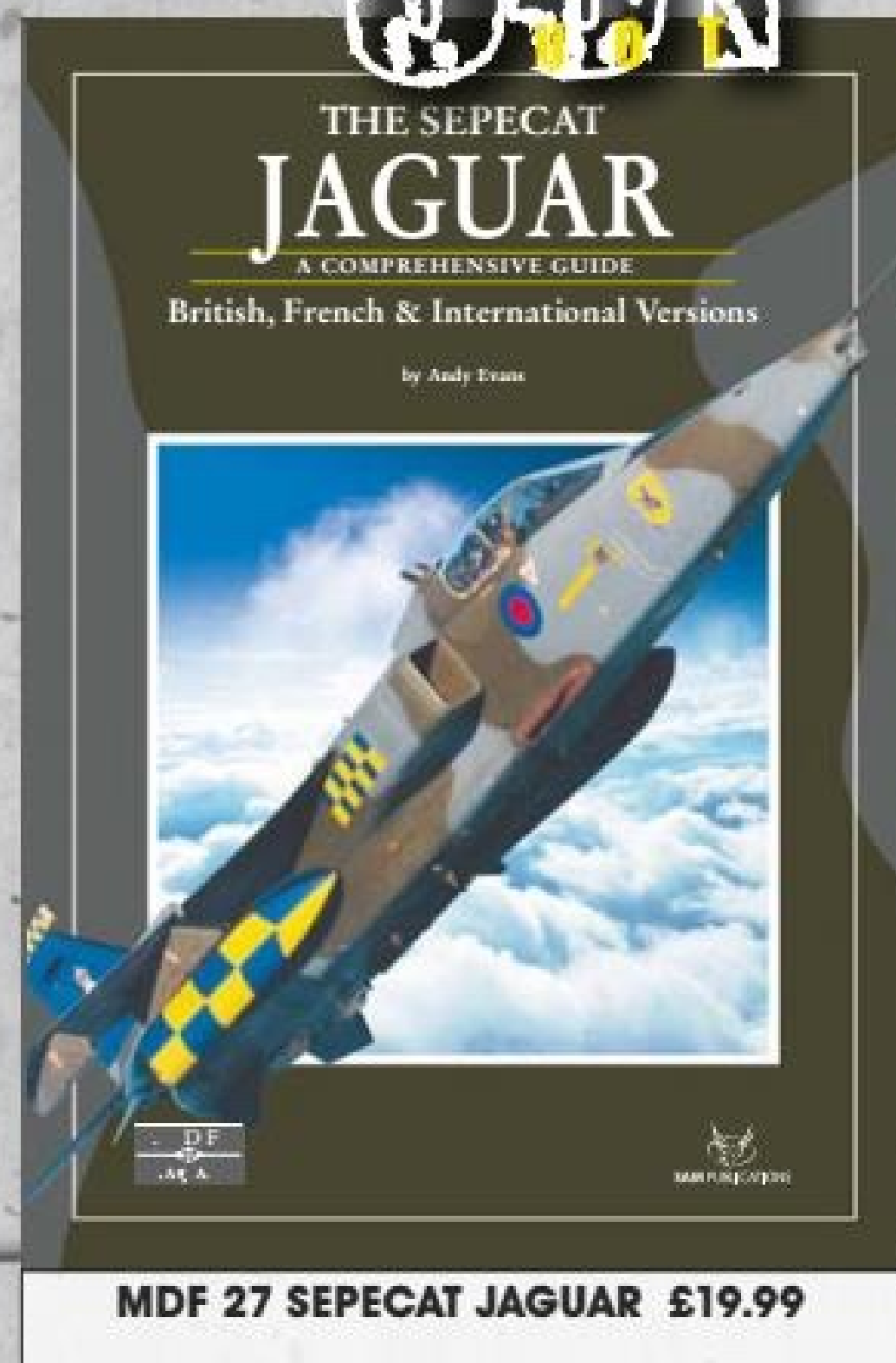
The He-177 was a challenging build made more complex by the addition of the aftermarket resin sets and dropping those trailing edge flaps, but these challenges are what the hobby is all about and it's unlikely we'll see a mainstream 'Greif' anytime in the near future. **MA**



SAM Bookshop

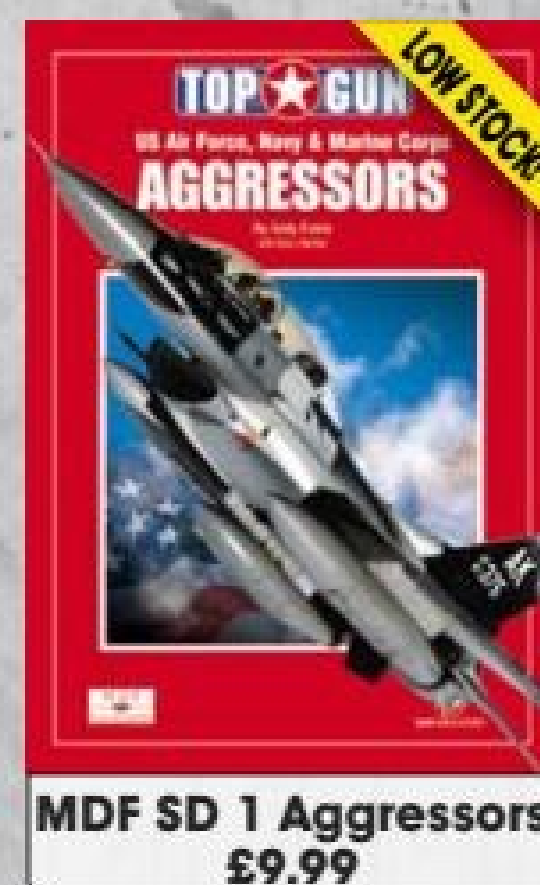
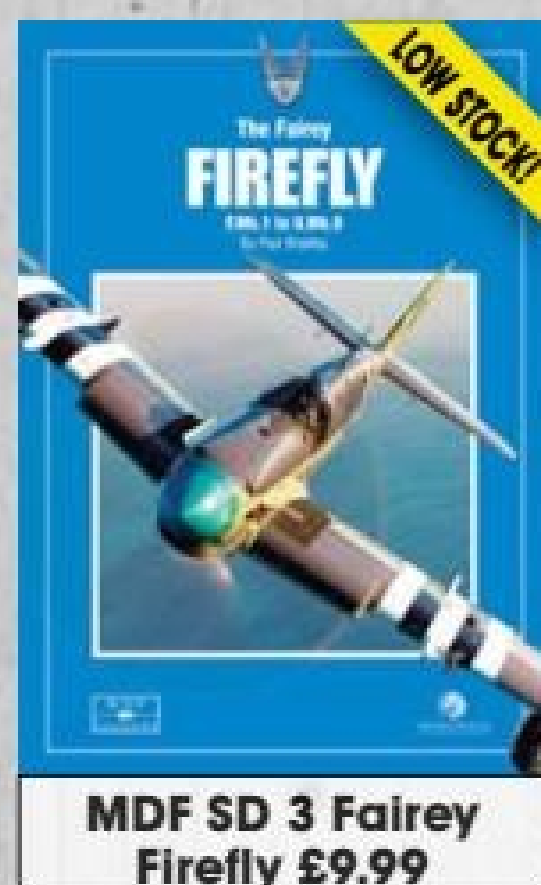
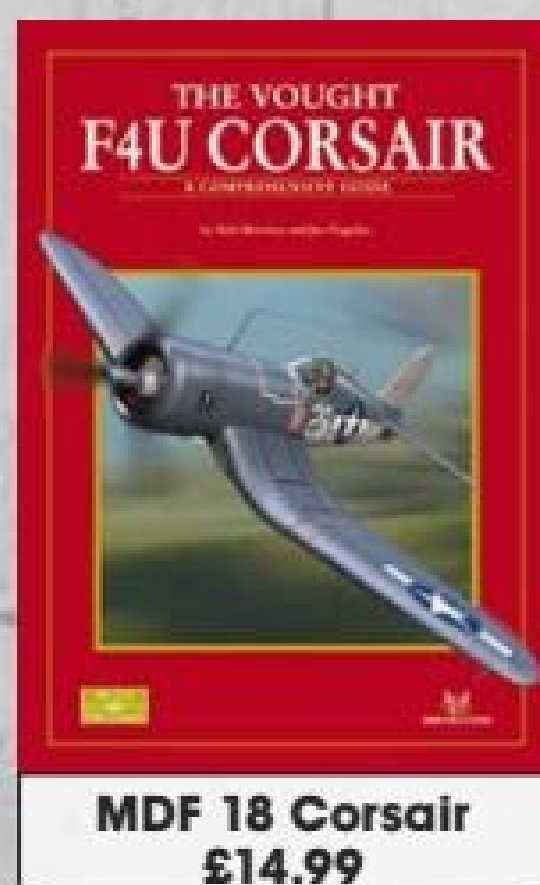
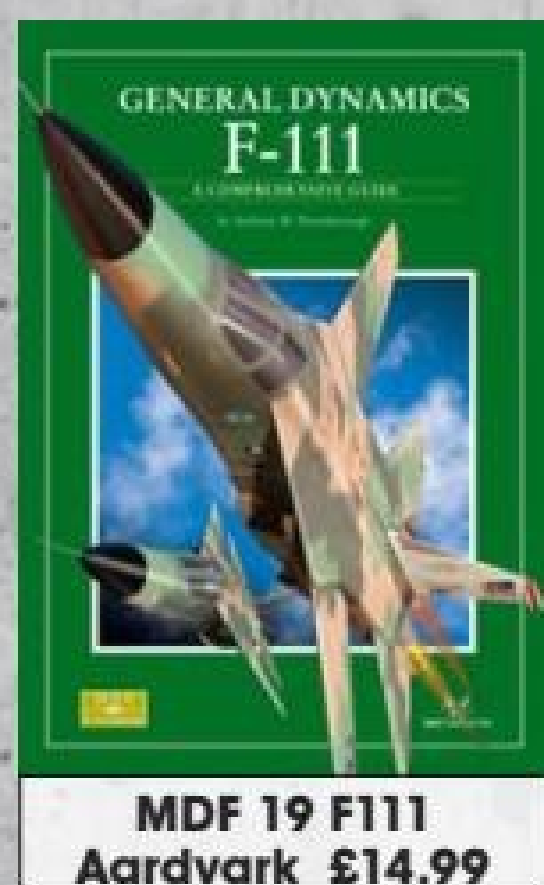
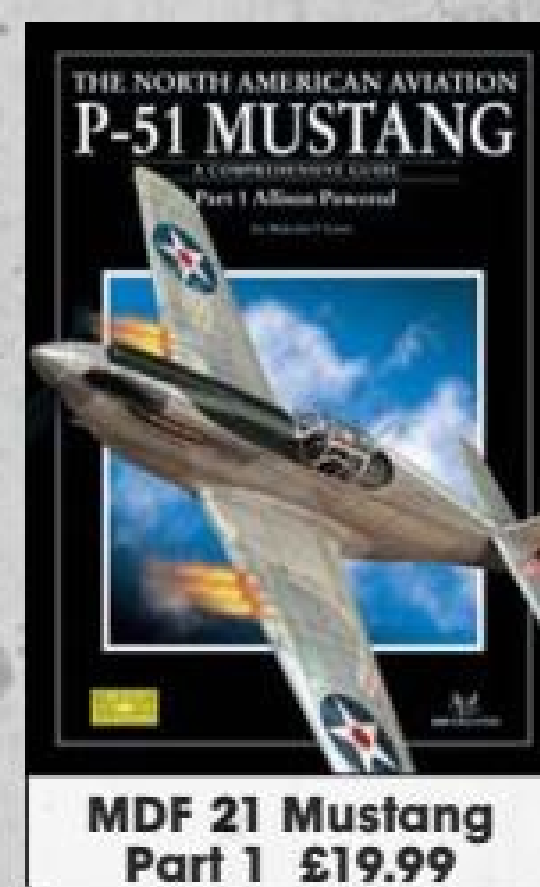
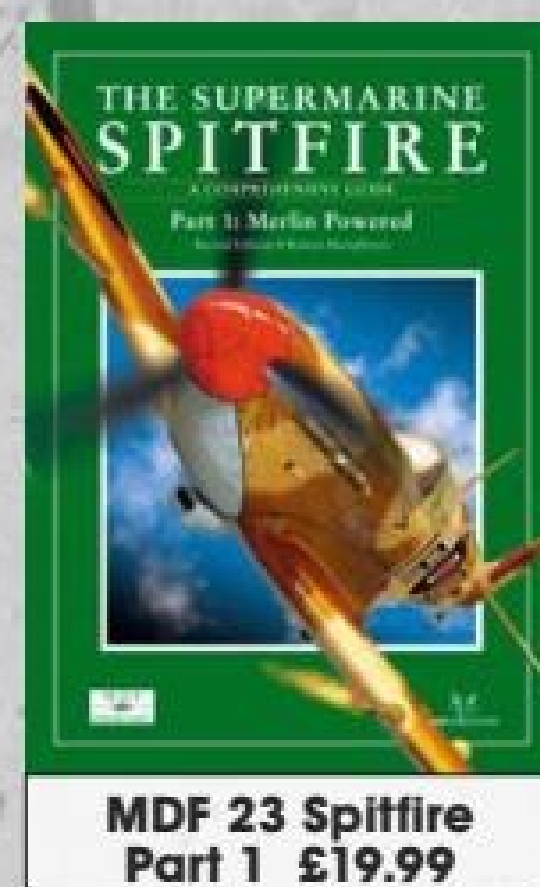
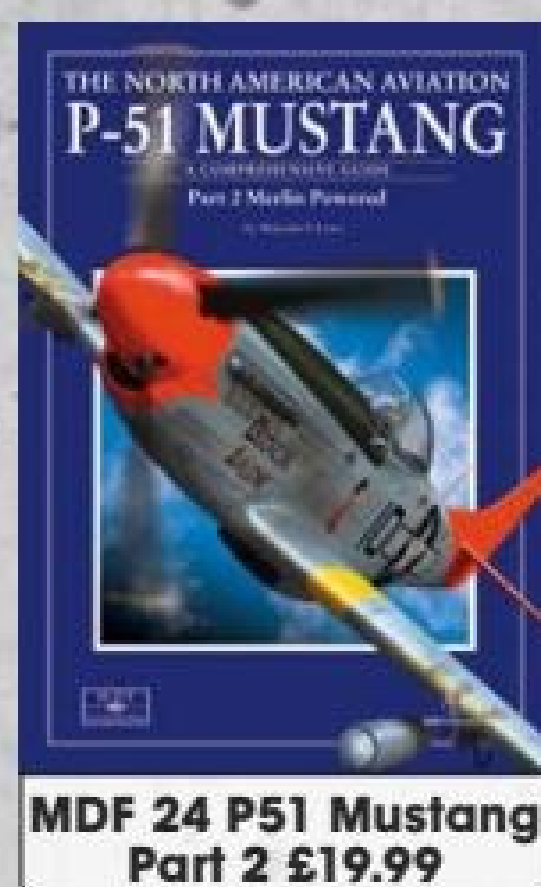
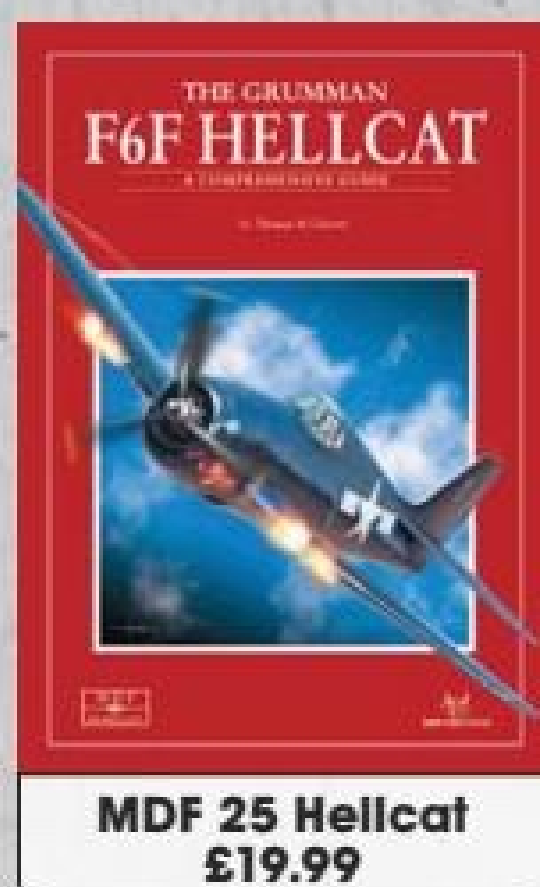
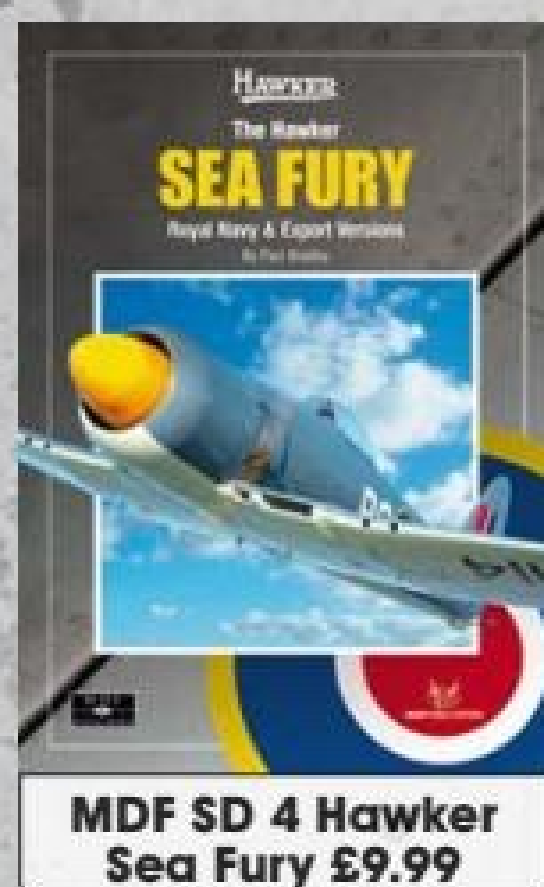
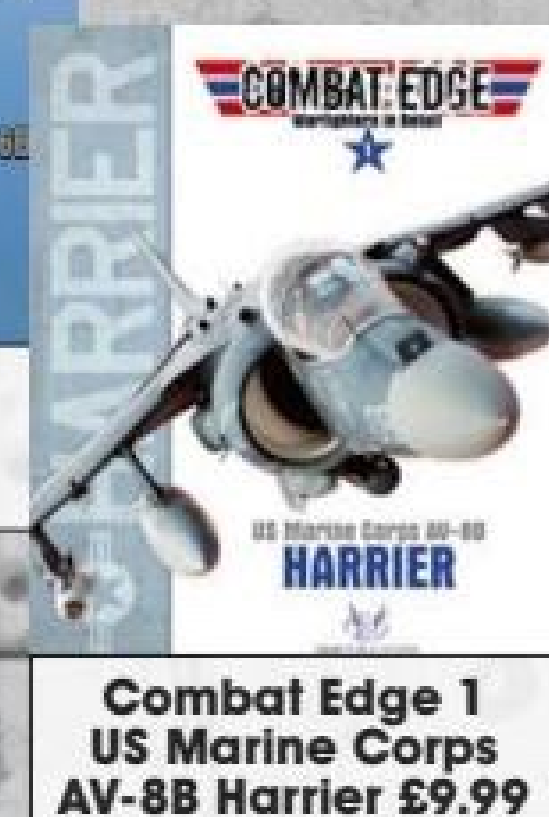
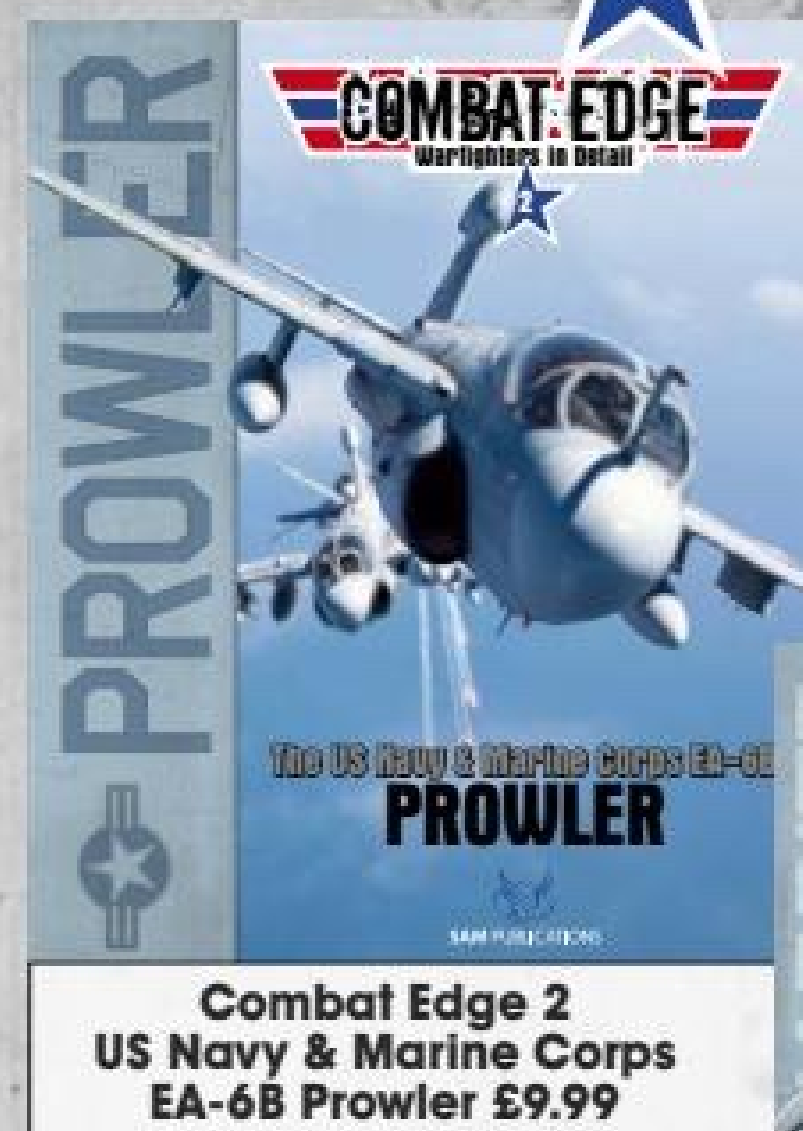


OUT NOW!



COMBAT EDGE

Warfighters in Detail



ORDER HOTLINE: (01234) 224993

For more information on all our products please visit

WWW.SAMPUBLICATIONS.COM





CASEMATE | uk

Books for modellers

WWW.CASEMATEPUBLISHING.CO.UK



11

CASEMATE COMPETITION

Eyes in the Sky Competition

Model Aircraft has got together with **Casemate Publishing** to bring you an exclusive monthly competition to win one of their latest military titles. Founded in 2007, **Casemate UK** is a major specialist publisher and book distributor in the UK, European and Commonwealth markets. The publishing arm of **Casemate** is

one of the leading publishers in the fields of military history, defence studies, and military science worldwide. **Casemate's** publishing list covers subjects as diverse as Roman History, Napoleonic Wars and the Iraq and Afghanistan conflicts of today.



So for your chance to win a copy of: *Eyes All Over The Sky – Aerial Reconnaissance in WW1* – Just answer this simple question:

What year did the Wright Brothers make their first successful flight?

- A) 1901
- B) 1902
- C) 1903



Send your entries to...

Model Aircraft/Casemate Eyes in Sky Competition

Media House, 21 Kingsway,

Bedford, MK42 9BJ

Or email:

clare@sampublications.com

Competition Rules

Employees/volunteers working for SAM Publications Ltd, Casemate Publishing and associated companies or their families are not permitted to enter. Entries are limited to one per person/household. No correspondence will be entered into. The judges' decision is final. Winners' names will be published in a future edition of Scale Military Modeller International.

All entries must reach Media House by 23rd December 2016, when the prize draw will take place.



F-4 Phantoms

in the Vietnam War



The McDonnell Douglas F-4 Phantom II is a legendary aircraft - an icon of the Vietnam War and the archetype of the third-generation jet fighter designs that entered service in the 1960s. By the time of the Gulf of Tonkin incident, thirteen of the thirty-one deployable US Navy squadrons were armed with the Phantom. F-4Bs from the USS Constellation made the first Phantom combat sortie of the Vietnam War on 5 August 1964, flying bomber escort in Operation 'Pierce Arrow'. The first Phantom air-to-air victory of the war took place on 9 April 1965 when an F-4B from VF-96 'Fighting Falcons' piloted by Lieutenant (JG) Terence M Murphy and his RIO, Ensign



An EF-4C of the 67th ECS over Vietnam in 1972

Ronald Fegan, shot down a Chinese MiG-17. The Phantom was then shot down, probably by an AIM-7 Sparrow missiles from one of its wingmen. On 17 June 1965, an F-4B from VF-21 'Freelancers' piloted by Commander Louis Page and Lieutenant John C. Smith shot down the first North Vietnamese MiG of the war. On 10 May 1972, Lieutenant Randy 'Duke' Cunningham and Lt (Jg) William P Driscoll flying an F-4J, 'Showtime 100', shot down three MiG-17s to become the first American aces of the war. Their fifth victory was believed at the time to be over a mysterious North Vietnamese ace, Colonel Nguyen Toon. On the return flight, an enemy SAM damaged the Phantom, and to avoid being captured, Cunningham and Driscoll flew their burning aircraft using only the rudder and afterburner until they could eject over water.

During the war, Navy F-4 Phantom squadrons participated in eighty-four combat tours with F-4Bs, F-4Js, and F-4Ns. The Navy claimed forty air-to-air victories at a cost of seventy-three



An F-4B of VF-21 dropping bombs over Vietnam in 1965



US Marine Corps Phantoms from VMFA-542 on patrol

Phantoms lost in combat. An additional fifty-four Phantoms were lost in mishaps. The US Marine Corps received its first F-4Bs in June 1962, with the 'Black Knights' of VMFA-314 at MCAS El Toro becoming the first operational squadron. Marine Phantoms from VMFA-531 'Grey Ghosts' were assigned to Da Nang airbase on South Vietnam's northeast coast on 10 May 1965 and were initially assigned to provide air defence. They soon began close air support missions (CAS) and VMFA-314 with VMFA-323 'Death Rattlers' and VMFA 542 'Bengals' soon arrived at the primitive airfield. Marine F-4 pilots claimed three enemy MiGs (two



An F-4J ready to launch



F-4J 'Showtime 100' of VF-96

while on exchange duty with the USAF) at the cost of seventy-five aircraft lost in combat, mostly to ground fire, and four in accidents. VMCJ-1 'Golden Hawks' flew the first RF-4B photo-reconnaissance mission on 3 November 1966 from Da Nang and remained there until 1970 with no RF-4B losses and one damaged by AAA.

On 10 July 1965, US Air Force F-4Cs of the 45th Tactical Fighter Squadron, 15th TFW, on temporary assignment in Ubon, Thailand scored the USAF's first victories against North Vietnamese MiG-17s using AIM-9 Sidewinder missiles, and on 26 April 1966, an F-4C from the 480th Tactical Fighter Squadron scored the first aerial victory by a US aircrew over a North Vietnamese MiG-21. On 24 July 1965, another Phantom from the 45th Tactical Fighter Squadron became the first American aircraft to be downed by an enemy SAM, and on 5 October 1966 an 8th Tactical Fighter Wing F-4C became the first U. jet lost to an air to air missile fired by a MiG-21. Reconnaissance RF-4Cs made their

debut in Vietnam on 30 October 1965, flying the hazardous post-strike reconnaissance missions.

Although the F-4C was essentially identical to the Navy/Marine Corps F-4B in flight

performance and carried the AIM-9 Sidewinder missiles, USAF-tailored F-4Ds initially arrived in June 1967 equipped with AIM-4 Falcon. However, the Falcon, like its predecessors, was designed to shoot down heavy bombers flying straight and level and was virtually useless in combat against agile fighters. The F-4Ds reverted to using Sidewinders under the 'Rivet Haste' program in early 1968, and by 1972 the AIM-7E-2 'Dogfight Sparrow' had become the preferred missile for USAF pilots. Like other Vietnam War Phantoms, the F-4Ds were urgently fitted with RHAW antennas to detect the Soviet-built SAMs.

From the initial deployment of the F-4C to Southeast Asia, USAF Phantoms performed both air superiority and ground attack roles, supporting not only ground troops in South Vietnam but also conducting bombing sorties in Laos and North Vietnam. As the F-105 force underwent severe attrition between 1965 and 1968, the bombing role of the F-4 proportionately increased until after



F-4Ds of the 435th TFS en route to target



A USAF Phantom dropping ordnance on target

November 1970 became the primary USAF tactical ordnance delivery system. In October 1972 the first squadron of EF-4C Wild Weasel deployed to Thailand on temporary duty, and the 'E' prefix was later dropped and the aircraft was simply known as the F-4C Wild Weasel. Sixteen squadrons of Phantoms were permanently deployed between 1965 and 1973, and seventeen others deployed on temporary combat assignments. Peak numbers of combat F-4s occurred in 1972, when 353 were based in Thailand. On 28 August 1972 Captain Steve Ritchie became the first USAF ace of the war, with USAF F-4C/D/E crews scoring 107½ MiG kills in Southeast Asia (fifty by Sparrow, thirty-one by Sidewinder, five by Falcon, fifteen and a half by gun, and six by other means). On 2 June 1972, a Phantom flying at supersonic speed shot down a MiG-19 for the first supersonic gun kill. **MA**

The Airbrush Company Ltd

Quality Equipment - Paints - Accessories

SPARMAX[®]

ARISM VIZ



SILVER BULLET™ *Plus*



2 in 1

Moisture Trap
with a built-in
Bleed Valve

Included with
Arism Viz
or available separately.

 **SMART STOP**
Power Saving Function

Pauses compressor when
airbrush is placed into holder,
restarting when taken off again.



LIFECOLOR

ACRYLIC HOBBY COLORS



neo for iwata



Aiclad II



WEATHERING OILS

20 New
Colours



WILDER QUICK MASK

For Better Visibility



5 Colours Available

COM•ART

DARKSTAR PIGMENTS

LIQUID PIGMENTS

Aiclad II

www.Airbrushes.com

01903 767800

sales@airbrushes.com



'First of the Weasels'

Peter Marshall builds the 1:48 Eduard F-4C and EF-4C

This kit is boxed as 'Good Evening Da Nang!' with the Academy F-4C inside with three additional bags of Eduard resin (seats, exhausts and wheels), two Eduard etched sheets, one of which is pre-painted, a set of masks for the canopies and wheels, a clear acetate film for the HUD, and a decal sheet designed by Furball and printed by Cartograph. There are spare parts aplenty if you feel like making a different version to that intended. Amongst other things there are four different tail fin caps, four different under nose IR fairings, slotted and unslotted horizontal tails, both without the arrow reinforcement (henceforth referred to as stabilators as they're not really horizontal), both types of refuelling options, two different tail cones, both long and short AN/ALQ-126 antennas, two different exhausts, different instrument panels and glare shields, two different intakes for the base of the vertical tail, thin and thick wheels with different hubs, various aerials and certainly other things I've missed.

Construction began as always with the cockpit, and there's a fair bit of raised detail to remove if you want to use the painted etch, and I think you probably will. Then the lower wing and intake trunking will need addressing before you can get into major construction. The wheel

Eduard F-4C Phantom

Manufacturer: Eduard

Scale: 1:48

Kit Type: Multi-media

Kit Number: 1193

well bays are made up of more parts than I think are absolutely necessary, and having made the bays out of so many separate panels I feel they could do with a little more detail on them. But they do go together well and the fit of the wing parts is very good, but I would rather not fit the

main undercarriage legs at this stage, however, they are a very creditable effort to replicate the real thing. The resin and etch exhausts are lovely, although I left the final petals parts off at this stage to make painting easier later. Then the upper fuselage section then went together - and suddenly it started to look like a Phantom.

Now at this point I had the TwoBobs sheet 48-114 'First of the Weasels', which has markings for five of the thirty-six aircraft converted to EF-4Cs (unofficial designation). To be strictly accurate 'First of the Weasels' is a bit of a misnomer as this was actually the 'Wild Weasel IV' program,





but it did give the option to hang something different on my F-4C. Unfortunately, the more I looked into it producing this variant - the harder it got. The TwoBobs sheet doesn't give you much help with the modifications needed to produce a reasonable version of the aircraft, and there are quite a few visible differences. So I dug out my Squadron/Signal 'Wild Weasel - The SAM Suppression Story' book and did some Internet searches and decided to do it anyway. One thing my searches kicked up was that the front left Sparrow bay was apparently permanently occupied by a strike camera, and though I have no clear pictures of it in use and found no mention of it in the books I have access to, I decided that it probably needed doing, and scratchbuilt an example from plastic card and other pieces.

The next parts are the intakes themselves, made up of an outer part and a two-part splitter

If you want to reproduce and 'EF-4C' then there is a lot of research you can do, which makes the build all the more enjoyable!



plate. The inside of the intakes have some depressions, which need filling and sanding smooth. Then the insides were painted white, as were the splitter plates aft of the perforated section and as per the instructions, and four small braces were added to the fuselage side. I also wanted to add the pitot's in the intake that supply data for the variable ramps, which were again scratchbuilt. I didn't install the intakes just yet as for my build there are a variety of add-ons applicable to the EF-4C, which are in addition to the strike camera already discussed. As I was aiming to do one of the aircraft on the TwoBobs sheet, I was looking at the Linebacker operations of late 1972 so the installed system was the



ER-142 (later replaced by the ALR-53), which required quite a few external antennas. Relevant at this point were the two ER-142 DF antennas, which are basically a small plate with a subtle circular bulge on them, located on each intake trunk, just above where the leading edge of the wing joins the fuselage, another scratchbuilt item. There are also four ER-142 homing antennas to go round the nose, just aft of the radome, at approximately the forty-five degree positions, and appear to be the same as the ones fitted to the F-105G so that gave me more to go on. Then there are two ER-142 stub antennas just in front of the nose gear door, and an APR-26 blade antenna in front of them. These were easy enough to do but I left the blade antenna for later. On the real aircraft at this time, an APR-25 system was installed in the empty IR nose fairing and in the fairing on the top of the tail. The tail fairings I could find pictures for looked sufficiently similar to the kit part so I made no changes to that. Also it's worth being aware that the update to the ALR-53 introduced a third antenna between the two existing ER-142 antennas in front of the nose gear door, again I left this off but obviously on all the surviving aircraft and many of the pictures this antenna is present.

The vertical tail is a very impressive one-piece moulding, the fin cap fits fantastically and the separate rudder is really nice, not just a flat part to a flat part join but a curved surface that fits into an appropriately shaped groove. I fitted mine just slightly off neutral for effect. Now the instructions tell you to use the slotted stabilators, I'm sure that's wrong and I was going to use the unslotted ones. I'm assuming that telling you to use the slotted ones is a carry over from the F-4B instructions, though even there I understand

that the some early -Bs had unslotted. At this point I also masked-off the canopies ready for painting. I usually like to start with the lightest colour first which was the Light Grey underside shade, and here I used Xtracolor X140 - FS16622. Then for the upper surfaces it was Xtracolor X102 - FS10219 Tan, Xtracolor X140 - FS14102 Medium Green and then Xtracolor X110 - FS14079 Forest Green, all sprayed freehand with my airbrush.

So, now it was time to look at the ordnance and pylons. The MERs bothered me, they aren't exactly dripping with detail, and the rear two side mounts don't line-up with the bottom one,

and I'm pretty sure they should. So I took the little pip off and lined them up as I thought they should be. The TERs are also lacking in detail and unfortunately the Mk 82s have issues too. So for my centreline pylon load-out I decided to go with a MER from the 'Hasegawa Weapons Set A' along with four SUU-30 dispensers from the same set, apparently a not uncommon choice for the 'Weasels. With the AIM-7s you again need to pay attention as there are two different variants provided.

The ones the instructions would have you use are referenced as AIM-7Es, whilst the others on the sprue have a waveguide configuration that I think makes them - Fs, however, the fins look more like AIM-7E-2s, introduced in 1968 (apparently) - so again, check your references. One last moan about Sparrows is that the decals say 'AIM-7E', but are (mostly) designed for the - F. One plus though was as I was making the EF-4C my similar concerns on the kits AIM-9 Sidewinders were unnecessary, as Shrikes were mounted instead. However that introduced its own problem - what launch rail to use for the Shrikes? A Hasegawa set that provided the Shrikes with 'Aero 5' launchers, but further researched suggested LAU-34 and LAU-118 were also used. So for this build I went for the 'LAU-34'. Finally the way the pylons were moulded meant I had to fill in the holes for the Sidewinder mounts and while I was at it, the holes at the rear where the AN/ALE-40 chaff/flare dispensers scab onto the pylon. I can't find dates for this system coming





lights and as the kit doesn't have them moulded in place I thought I would take advantage of that. I used some of the kit markings to fill out the lack of full stencil detail on the TwoBobs sheet but I still felt it was short of a lot of markings, so I turned to an Aeromaster stencil sheet and used a lot of them as well. With all the decals now in place I added the



landing gear, fitted the gear doors, the air brakes, the centreline pylon, wing tanks (be aware that the pylon supports are handed and I don't think the instructions are clear enough about which is which) and the rear Sparrows. The ejector seats were then fitted as were the canopies and a plethora of other smaller details, and my 'Weasel' was complete. If you want to reproduce an 'EF-4C' then, like me there is a lot of research you can do, which made this build all the more enjoyable!

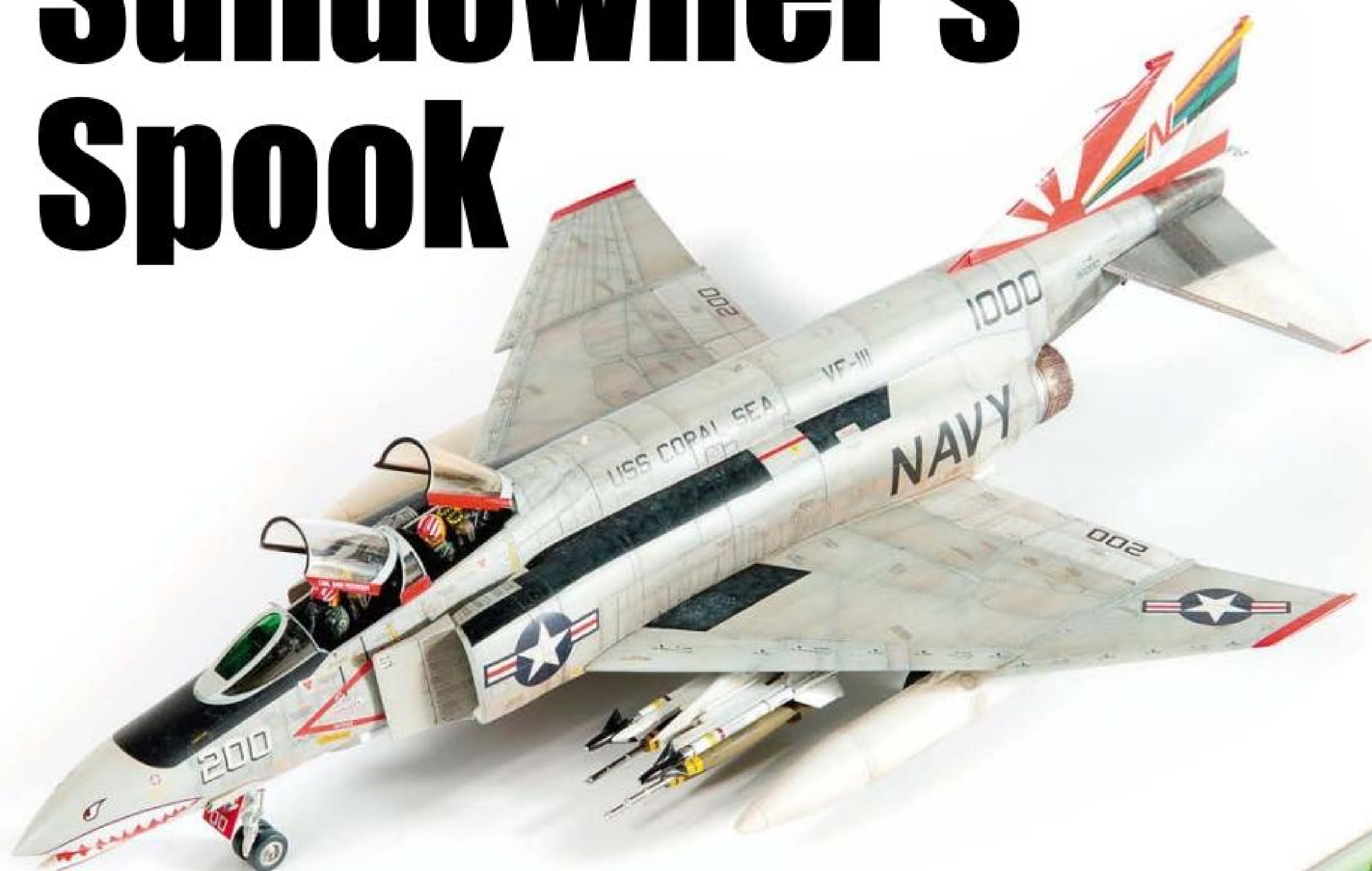
into service but I'm pretty sure I've never seen them on Vietnam era pictures, so if someone has pictures to show me otherwise I would be very interested! I also added some sway braces from the 'Hasegawa Weapons Set C' to the pylons, added my LAU-34s and the Shrikes to these and moved on.

Now it was time for markings. I had decided to do tail code '840' partly because it's the only one of the options without formation





Sundowner's Spook



Sunhwie Hwang builds the 1:48 Academy F-4B

Phantoms from the US Navy's colourful VF-111 'Sundowners' need no introduction. This is the 1:48 Academy F-4B kit, which is quite a delight to build, although it does have its problems! I added a KA Model F-B/C Exhaust Nozzles, and Verlinden Mk 82 and Snakeye Bombs for good measure. The aircraft is finished in the usual Gull Grey over White and the decals, although a little tricky in places settled down well. I wanted to show an aircraft that had seen some service from aircraft carriers during the Vietnam War and so I used a number of methods to create some subtle, and not so subtle weathering. Raw Umber and Burnt Umber oils were used a quite a lot as were pigments and washes. I also wanted to show very 'heat-treated' exhaust nozzles and metallic areas around the afterburner cans. This was a very happy build for me and I hope you enjoy this Vietnam War-bird. **MA**



F-4B Phantom

Manufacturer: Academy

Scale: 1:48

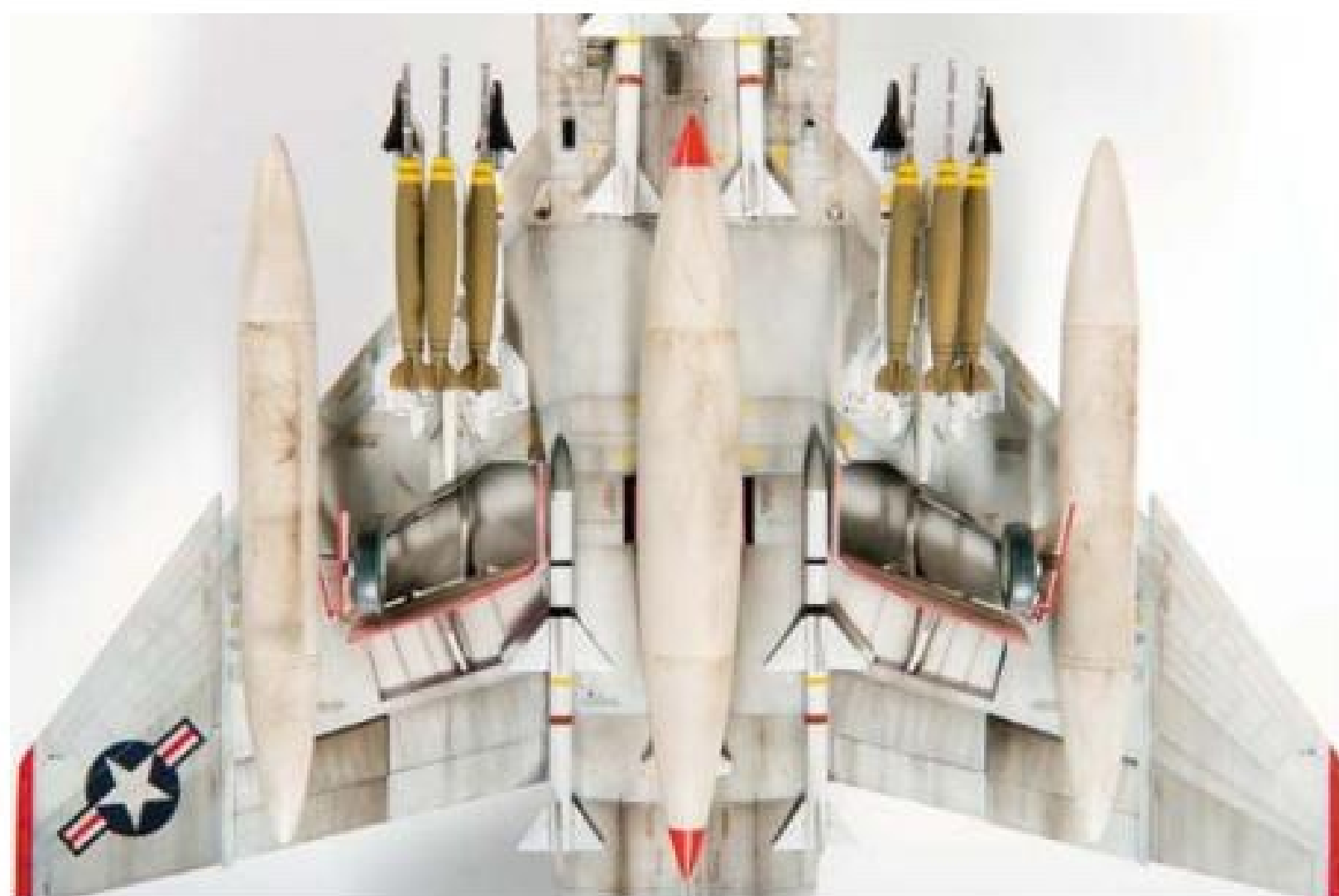
Kit Type: Plastic injection moulded

Kit Number: 12232



Phantoms for the US Navy's colourful VF-111 'Sundowners' need no introduction







PEN & SWORD AVIATION CATALOGUE

**BUY 4 BOOKS
GET A 5TH ONE
FREE!**

**FREE postage on orders over £30
Plus 30% Discount on ALL Titles!**



Aviation Modeller 2016



Military Modelling with Pen & Sword Books



Click [here](#) to view our digital-only catalogue and take advantage of these AMAZING offers.

Customers viewing offline please email
keaton@pen-and-sword.co.uk to be sent a direct link.

Offers are available for a limited time only.



'Night Terror!'

North Weald Night S

Neil Atterbury of Four Elements Photography took these atmospheric afternoon into evening images at the former Battle of Britain Air Station. **MA** Thanks to the Hangar 11 Collection and Timeline Events for the opportunity to shoot these images.



'PRU Patrol' –

FOURELEMENTS
PHOTOGRAPHY

hoot



'End of the Day'. Pilots discuss the events of the day as night covers their aircraft



'Spitfire Sentinel'. The grey evening closes in



'Stallion at Sunset'



'Scramble'. Just like the heady days of the Battle of Britain, pilots run to their aircraft to intercept the enemy

Marking Time with TwoBobs



'Texan Wildcat'

Andy Renshaw builds a 1:48 T-6A in the markings of VT-10 based at NAS Pensacola

The Beechcraft (formerly Raytheon Aircraft Company) T-6 was developed for the Joint Primary Aircraft Training System (JPATS) competition in the 1990s. Originally the T-6 was a modified Pilatus PC-9, the Beech Pilatus PC-9 Mk. II, however continual requirement conflicts and changes between the USAF and USN resulted in an all-new larger and heavier aircraft with only a superficial familiar look to the PC-9. Beechcraft has been successful in promoting the new trainer the world over, and it now is operated by eight nations with the United Kingdom signing a contract earlier this year for ten aircraft to start replacing its Short Tucano T1s. The Texan II has undergone several improvements, including the addition of a 'glass' cockpit and HUD, plus additional strengthening and addition of hard points for either weapons training or armed recon/light attack roles.

The now defunct Ibex released this kit several years ago and was welcomed enthusiastically as the only 1:48 plastic kit of this aircraft. However the kit showed its 'garage company' roots with

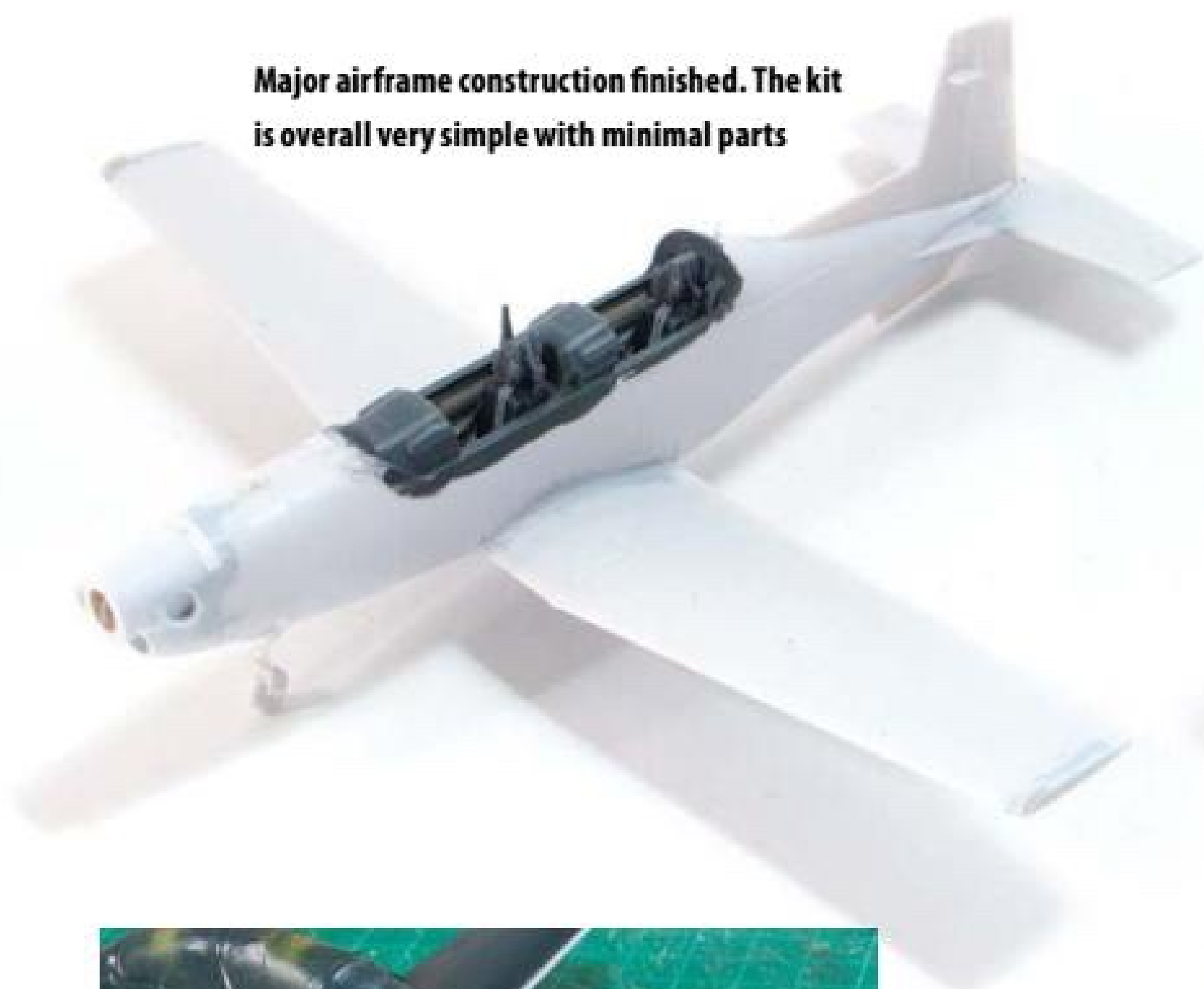
some overall soft surface detail and thick sprue characteristic of low-tech moulding. As a plus though some resin parts were included for the more critical items, such as wheels, propeller hub, seats, and other bits, and a vacuformed canopy provided a crystal clear rendition of this important aspect. Finally, there were some beautiful decals provided by Cartograph for a couple of options.

The US Navy celebrated its 'Centennial of Naval Aviation' (CONA) in 2011, and as part of the festivities a host of aircraft was painted in commemorative schemes as part of a Heritage Paint Project. Aircraft were selected and painted based on historical directives or modified schemes that were worn by aircraft of the past, and covered the full spectrum of colors. The T-6 Texan II did not escape, and two were painted, including BuNo 165966. Two Bobs Decals released a sheet providing decals for both CONA Texan II's, plus a third in standard USN training colors. Being the NavAir fan I am, this gave me just the excuse to build the Ibex kit.



Not looking for a super detailed build, I approached the kit with a relaxed mindset to just enjoy the experience. Overall the shape and detail is correct, so the end result would be accurate even if not up to 21st century molding standards. The kit went together really well with

Major airframe construction finished. The kit is overall very simple with minimal parts



Overall Model Master Gloss Sea Blue provided the basic color.....



Instead of using the decals, the checkerboard nose was masked and painted

.....and the natural metal leading edges were hand painted and masked before the blue was applied



The Texan's clean glossy look contrasts with the other weathered warhorses on my display shelf



When parked, the T-6A has its prop feathered

only a few areas that needed attention. First I opted to close the cockpit, as the large clear canopy would provide ample viewing inside, and also utilize the decal side consoles to the best advantage. Before we grimace at the 1960's low tech approach to the cockpit detail, the decals from Cartograph and are themselves very detailed, to the point it would be a shame not to use them, and once in place and under glass, one is hard pressed to tell they are two-dimensional.

The instrument panels were hand painted, and the glass portions hit with a drop of clear epoxy. Once the cockpit was finished, the fuselage was closed up and wings added. Be sure to add 'lots of weight' to the nose, as this model is a tail sitter. To finish off the airframe, the canopy was dipped in Johnson's 'Future' and attached using small drops of CA glue - being extra careful there was no dust on the inside. At this point the largest fit error of the kit became apparent with the canopy being short, resulting in a gap at the front of the canopy. So some 'Apoxy Sculpt Putty' was formed and blended into the gap taking care of the issue.

Painting this particular scheme, an overall Gloss Sea Blue, was fairly simple. I opted to do the natural metal leading edges first, and brush



Polishing with Uschi van der Rosten Polishing Powder gave the hub a fantastic look

painted Floquil Old Silver using a wide brush. Once dry, these were masked off to prepare for the blue. The entire aircraft was given a good wet coat of Model Master Gloss Sea Blue and allowed to dry for several days. For good measure a coat of Future acrylic gloss was applied before decals. TwoBobs provides decals for the checkerboard around the cowl, however instead of attempting to decal over the complex curves, I opted to mask the pattern. Strips of tape the width of each row were placed, then the vertical cuts measured and done with a brand new blade. Removing every other resulting square gave me the checkerboard pattern. Both it and the landing gear bays were





The clean glossy look contrasts with the other weathered warhorses on my display shelf

painted white, and allowed to dry. Another coat of 'Future' sealed the white and we were ready for decals, which were applied. Of the three schemes presented on the TwoBobs sheet, #165966 is the only T-6A, with the other two schemes being T-6B and would require modification to the kit instrument panels. The decals went on beautifully, and were sealed in with yet another coat of Future clear gloss. Only a bit of panel line wash was used around the control surfaces and landing gear for 'weathering.'

The walkways and antiglare panel were then masked off and painted flat black, and the propeller hub, provided in resin, was smoothed and painted with Model Master Metalizer which was followed by a generous rubbing of Uschi van der Rosten Polishing Powder. The exhausts were also treated to a steel and brass mix of Metalizer, and installed. Being 'butt' joints between the props and hubs, I opted to drill and pin each blade, which was positioned feathered as appropriate for a parked T-6A. The landing gear bay doors were the last items to be installed, and thus finished out an enjoyable build. The clean glossy look sure contrasts with the other weathered warhorses on my display shelf! **MA**



The vacuformed canopy provides a crystal clear rendition of this important part



Of the three schemes presented on the TwoBobs sheet, #165966 is the only T-6A

Sprue Brothers Models LLC

TEAM UP WITH THE BEST In...

KITS TOOLS SUPPLIES ACCESSORIES

- ✓ SELECTION
- ✓ SERVICE
- ✓ SHIPPING

spruebrothers.com



KITKRAZY.COM

303 The Broadway, Bexleyheath, Kent DA6 8DT



Incorporating 1,000's of kits and collectables.

Spend £10.00 or more instore and receive **25% discount** on all Model Kits
Offer not valid online. T&C's apply.



Tel/Fax: (020) 8298 7177

To be sure of future copies of *Model Aircraft*, fill in your details and hand this form to your newsagent

☐ Please reserve/deliver* a copy of *Model Aircraft* on a regular basis, commencing with the issue

*delete as appropriate

Title/Mr/Mrs/Ms

First name: Surname:

Address:

.....

.....

Postcode:

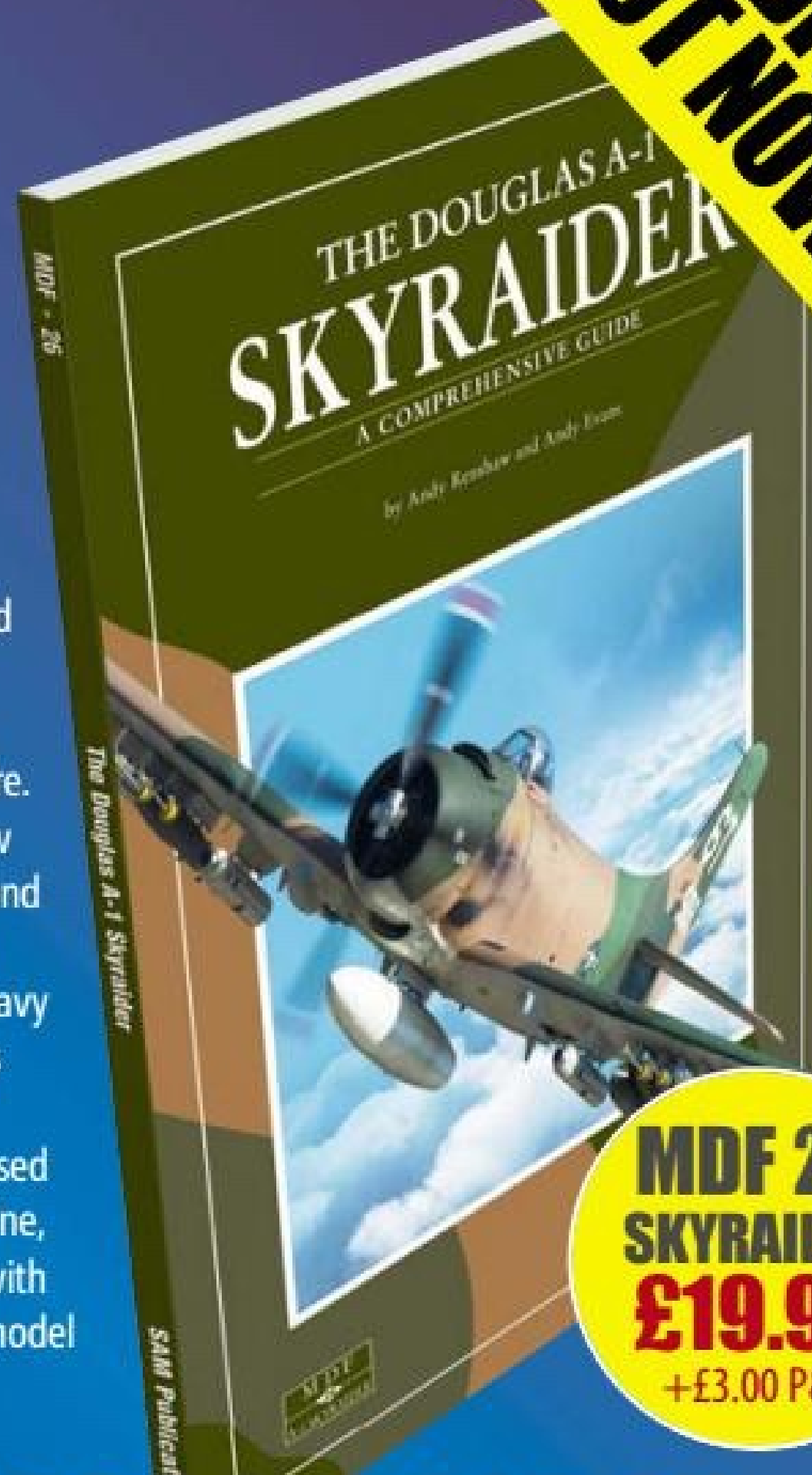
Daytime Telephone No:

Just ask!

THE DOUGLAS A-1 SKYRAIDER

By Andy Renshaw and Andy Evans

Able to carry a greater payload than a four-engine B-17 Flying Fortress, the single-engine A-1 Skyraider was considered one of the finest attack and close air support aircraft ever built. Skyraider's proved critical during the Korean War and over the jungles of North Vietnam. The airplane that became the AD Skyraider (redesignated A-1 in 1962) evolved from a 1943 Navy decision to combine the dive-bombing and torpedo mission into one aircraft. First flown in 1945, the Skyraider entered US Navy service the following year. Later nicknamed 'Spad' for its 'old-school' design and appearance, reminiscent of the famous World War I aircraft, the Skyraider earned a reputation for ruggedness that not only packed a punch, but also brought back many an airman, despite taking heavy damage from enemy fire. Some AD pilots also trained for an atomic war, practicing long-range flights to deliver nuclear bombs at low altitude. A-1s were also part of the first attacks against North Vietnam following the Tonkin Gulf Incident, and in June 1965, a pair of Skyraiders even shot down a North Vietnamese MiG-17 in air-to-air combat. It was perhaps in the 'Sandy' Combat Search And Rescue role the USAF Skyraider earned most respect, and its heavy payload and long loiter time proved vital in rescue of downed airman in Southeast Asia. The Skyraider was also used by the air forces of South Vietnam, France, Cambodia, Chad and Gabon, and the Royal Navy operated a dedicated airborne early warning version from her aircraft carriers, and the Swedish Air Force used the Skyraider as a target tug. All told, 3,180 Skyraiders rolled off the Douglas Aircraft Company assembly line, and in this new Datafile by Andy Renshaw and Andy Evans, the Skyraider story is brought to life. Packed with many never before seen images, concise text, colour profiles, technical diagrams, scale plans and how to model the Skyraider in popular scales, this book is a must have for the enthusiast and modeller alike.



**MDF26
OUT NOW!**

**MDF 26
SKYRAIDER
£19.99
+£3.00 P&P**



ORDER HOTLINE: 44 (0)1234 211245
ORDER ONLINE: www.sampublications.com



Absolute Zero!

James DiCesare builds the superb 1:48 Tamiya A6M5

The Japanese Zero is often regarded as one of the best fighters of the Second World War. Its lightweight design made it extremely manoeuvrable, but the price that was paid was poor, or no, armour for the pilot. This could prove quite catastrophic once the airplane took enemy fire. As the war continued, newer and better-allied fighters such as the Corsair and Hellcat outmatched the 'Zero', and the Zero will always be an icon of the air war over the Pacific. For whatever reason, Japanese model subjects don't seem to be nearly as popular as German and Allied aircraft are, at least not in the west. I've been itching to add more of these subjects to my display shelves, so I was anxious to get this kit on my bench. Tamiya had released a line of Zeros in the 1970s and those kits have been circulating the hobby shop shelves for years. In the past handful of years Tamiya has revisited their Zero line in 1:48, and the word has been that these kits are sublime - typical of Tamiya. The surface detail is second to none, and engineering is cleverly thought out and executed

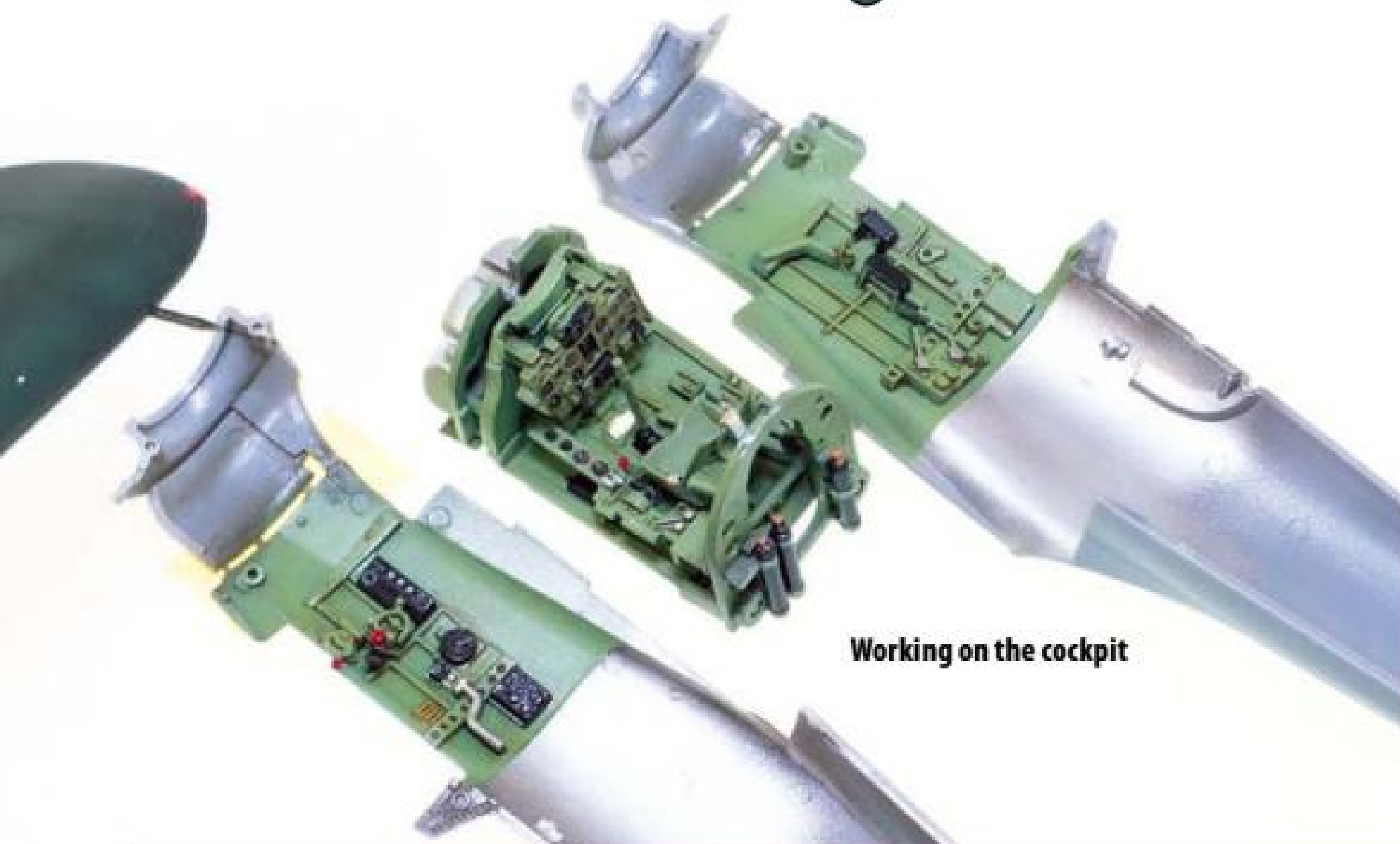
- so, let's get started.

Insert the old 'work began in the cockpit' cliché because that's exactly where I started. The cockpit is quite a nice affair, and I can tell you from experience with the older Zero kits, it's much better detailed. Beyond the detail, though, are some clever engineering decisions. Details like control boxes and throttles are moulded separately as inserts. This will ease painting if you prefer to stick to the airbrush, however, installing them and detail painting wouldn't present much challenge. Tamiya's have a very nice Cockpit Green XF-71 for their Japanese kits, and was airbrushed over the cockpit parts and detail painting soon followed according to the instructions. After painting I gave the cockpit a quick seal of satin varnish to assist with some very light weathering, some Ammo of MIG Green Brown wash was added.

Keeping with Tamiya's straightforward approach there's not much else to do before closing the cockpit, but I did want to tackle a couple of other tasks first. Among these being



to recreate this by spraying a base coat of Alclad Aluminum and then over-spraying this with a mix of Tamiya clear green and clear blue. The first step was to lay down the aluminum, so I did this while cockpit components were curing. Next, I moved to some work on the engine. The engine is a nice little affair. You could easily add some wiring embellishments, but unlike many radials



Working on the cockpit



The engine is very nicely done

You honestly can't seem to go wrong with any of the 1:48 Tamiya World War II fighters

the face sits way back in the cowl with a large spinner and the propeller out in front. Plus the Sakae 21 engine is mostly black so it's going to be hard to see, so I just opted to detail paint it per the instructions.

So, cockpit done, engine done, and some preliminary painting in the wheel bays means it's time to bring all the main components together. Actually, the fuselage halves are glued together and the cockpit tub is inserted from the bottom. The fit here is exceptional as expected. From here I brought the assembled wings into place; again these are click fit and some solvent seals them down nicely. No filler is needed anywhere on this kit. The landing gear legs were built up, and the various gear doors were sorted for painting. When it was time for primer I broke out the Mr Finishing Surfacers 1500 and laid down some velvety smooth black to work with. First, I turned my attention to the light grey of the underside by laying down a marbled coat of paint to work



Adding the primer coat



Applying a 'marbling' coat.....



....and the subtle result once the top coat is added



Gloss applied – ready for the decals

some variation into the colour scheme. The key here is to vary the density. I add heavy patches over certain panels and do some panel line highlighting in the same manner. Next I come back over this with a thinned down layer of the same color to blend things in. Looking at the pictures you can see how this adds nice tonal variety to things.

This process is repeated on the upper surface with Mr Hobby IJN Green as well, but because this colour is darker I changed the routine just a bit. After the blend coat I went back with a slightly lightened mix of the base shade and added some post-shaded fading to panels. It was now time for the typical pre-decal gloss coat, and here I chose to use Alclad's Aqua Gloss. First a mist coat and then a second heavier coat gave a sufficient surface to work with. Unfortunately, Tamiya's decals are a bit of a let down and difficult to work with, but after a catastrophe with my first attempt my second go was less than satisfactory but acceptable. I highly recommend aftermarket decals if you choose this kit. The decals were now sealed with Vallejo Satin Varnish and I moved to weathering. First, a panel line

wash. For the underside I chose Ammo of MIG Medium Grey with a topside wash of Medium Tan. This is a lighter colour than the base, which I know sounds counterintuitive. However, with my washes I'm looking to represent accumulated dirt and grime, as my goal was not to just outline

panel lines for the sake of it. That said, I don't worry too much about uniformity and making sure every panel line is highlighted. That's just not how it happens in reality. Once the wash has dried for a few minutes I use a makeup sponge to wipe the excess away from the surface in the way of the airflow and you get some nice streaking and staining to dirty up the surface a bit. Now I want to add some more streaking to the bottom of the model as all kinds of fluids leak down here, so we need to represent this in my weathering. Here I used Ammo of MIG Streaking Grime. Avoid symmetry. Once the streaking fluid dries blend it into the surface with a wide brush slightly dampened with mineral spirits. The regular Streaking Grime has a brownish colour, but I want to add some variety, so I then went with Streaking Grime for Winter Vehicles, which has a greyish/black tint. The wash added some nice weathering, and I went back over the green parts with some white, yellow, and light green oil dot filters before brining all of the smaller parts together to finish off the build.

The Tamiya kit really is a joy. You honestly can't seem to go wrong with any of their 1:48 World War II fighters, and I hope this build will inspire more people to look at this kit and other Japanese subjects as well. **MA**



The upper surfaces with a wash applied



The Tamiya kit really is a joy

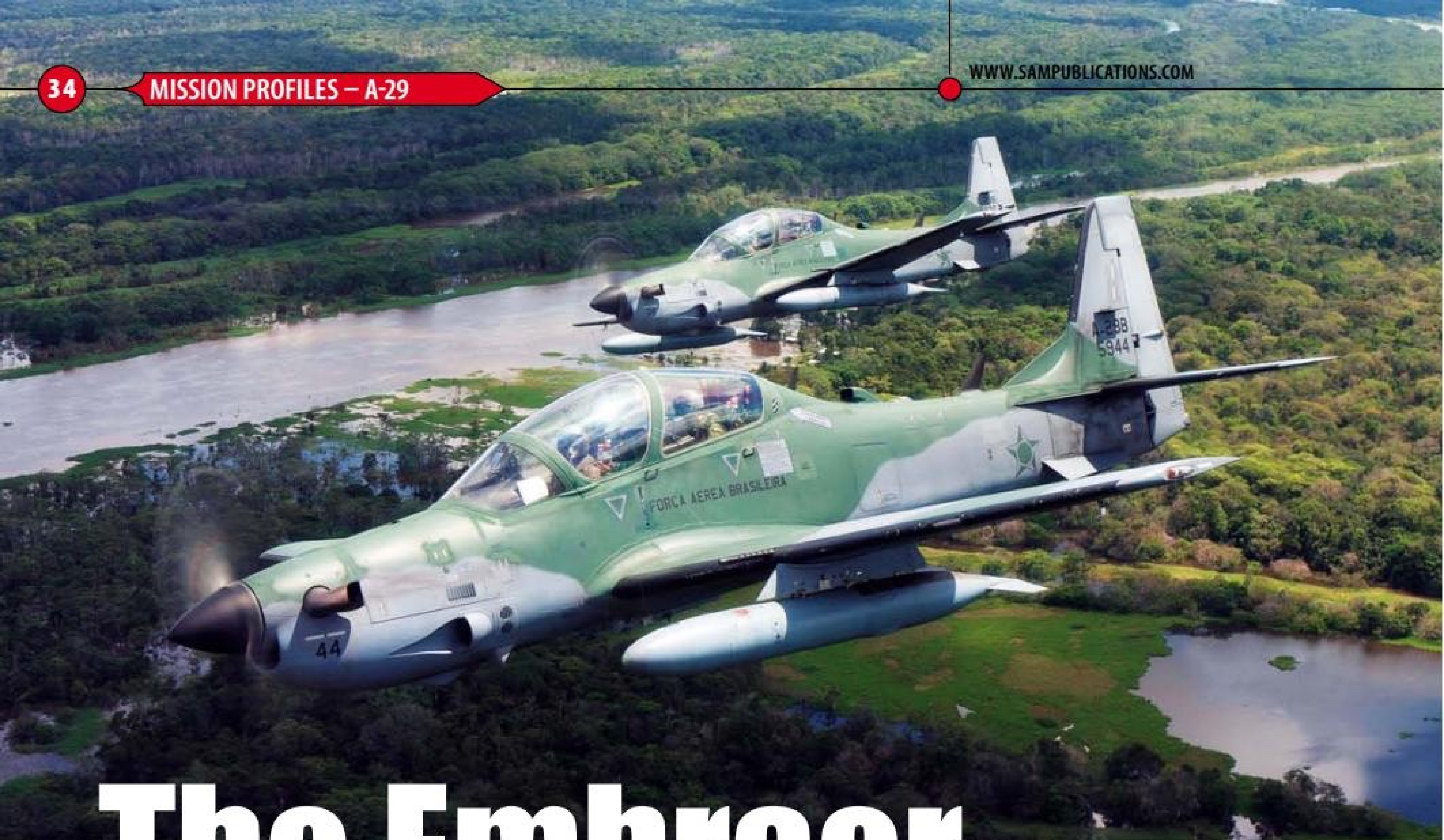
The Zero is often regarded as one of the best fighters of the Second World War



Streaking on the undersides



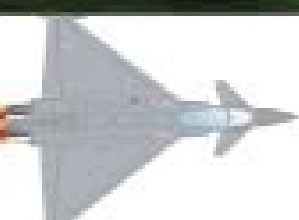
The decals were sealed with Vallejo Satin Varnish



The Embraer

EMB 314 Super Tucano

MISSION PROFILES



The Embraer EMB 314 Super Tucano or A-29 is a two-seat turboprop aircraft designed for light attack, counter insurgency (COIN), close air support (CAS) and aerial reconnaissance, and derived from the baseline EMB-312 trainer. Designed to operate in high temperature and humidity conditions in extremely rugged terrain, the Super Tucano is highly maneuverable, has a low heat signature, incorporates fourth generation avionics and weapons. It is powered

by a more powerful Pratt & Whitney Canada PT6A-68C engine and has a strengthened airframe to sustain higher g loads and to increase fatigue life in operational environments. It also has reinforced landing gear to handle greater takeoff weights and heavier stores load, Kevlar armour protection, two internal wing-mounted .50 calibre machine guns, and the capacity to carry various ordnance on five weapon hardpoints including Giat NC621 20mm cannon pods, Mk 81/82 bombs,

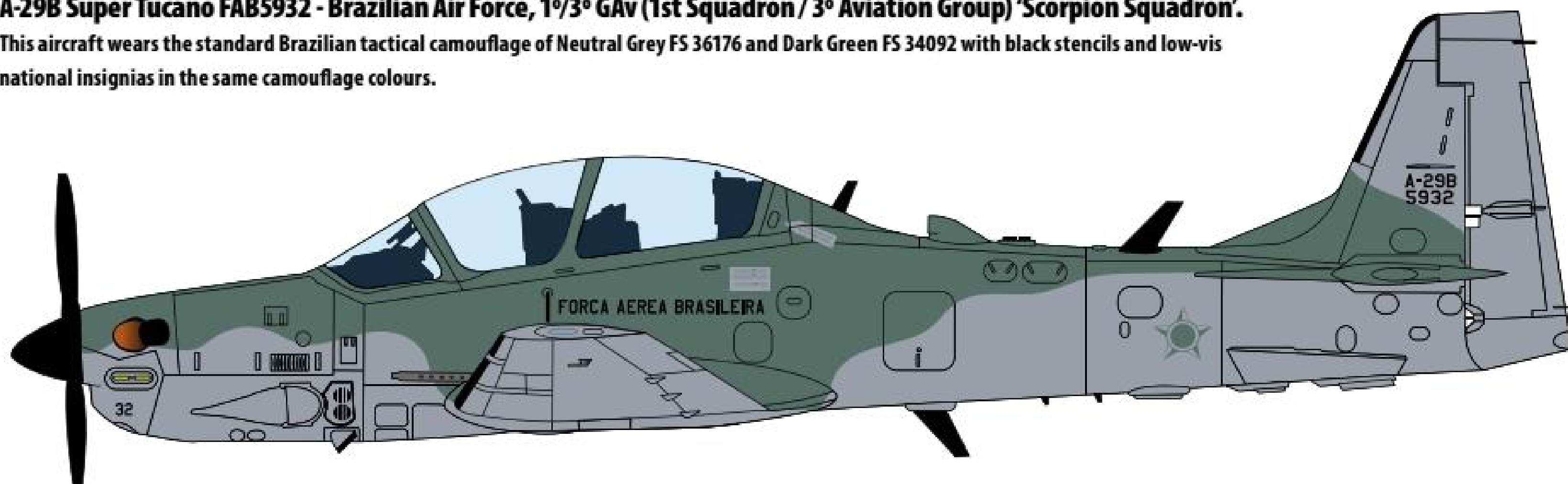
MAA-1 Piranha AAMs, BLG-252 cluster bombs and SBAT-70/19 or LAU-68A/G rocket pods on its underwing stations and has a night-vision goggle (NVG)-compatible 'glass cockpit' HOTAS controls, provision for a data-link, a video camera and recorder, an embedded mission-planning capability, FLIR, chaff/flare dispensers, missile approach warning receiver systems and radar warning receivers (RWRs) and zero-zero ejector seats.



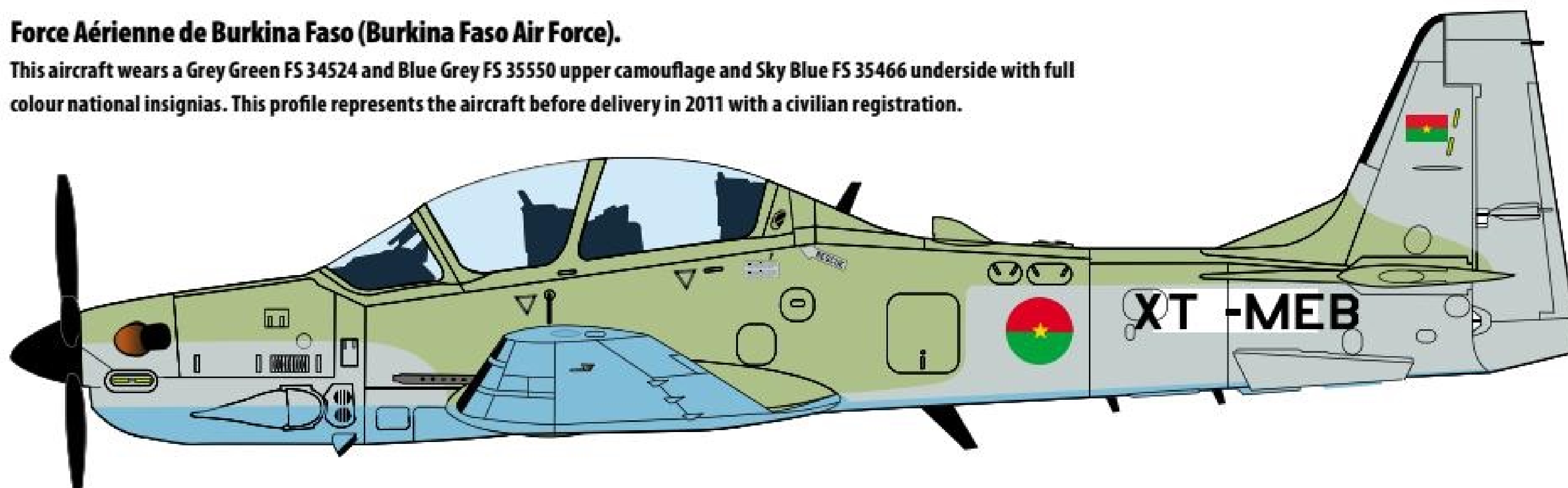
A Sharkmouth Colombian bird

A-29B Super Tucano FAB5932 - Brazilian Air Force, 1º/3º GAv (1st Squadron / 3º Aviation Group) 'Scorpion Squadron'.

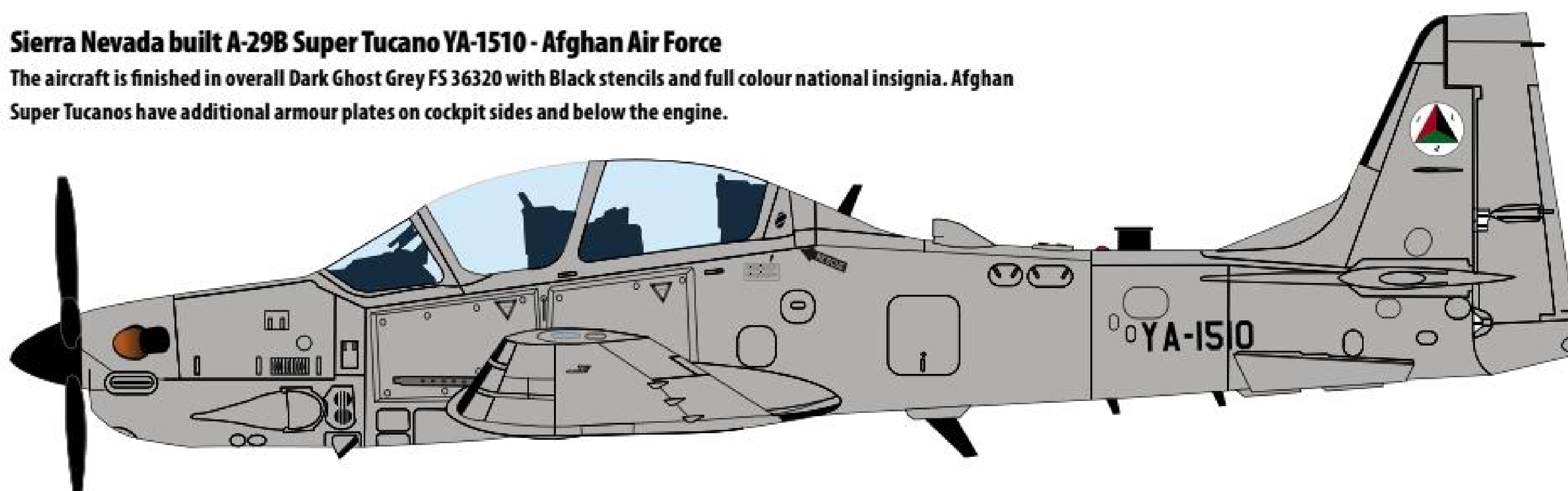
This aircraft wears the standard Brazilian tactical camouflage of Neutral Grey FS 36176 and Dark Green FS 34092 with black stencils and low-vis national insignias in the same camouflage colours.

**Force Aérienne de Burkina Faso (Burkina Faso Air Force).**

This aircraft wears a Grey Green FS 34524 and Blue Grey FS 35550 upper camouflage and Sky Blue FS 35466 underside with full colour national insignias. This profile represents the aircraft before delivery in 2011 with a civilian registration.

**Sierra Nevada built A-29B Super Tucano YA-1510 - Afghan Air Force**

The aircraft is finished in overall Dark Ghost Grey FS 36320 with Black stencils and full colour national insignia. Afghan Super Tucanos have additional armour plates on cockpit sides and below the engine.

**A-29B Super Tucano #192 ST-MAW**

Armée de l'Air de la Mauritanie (Mauritania Air Force). This aircraft wears a desert camouflage in Light Sand FS 32563 and Light Brown FS 30257 with black stencils and full colour national insignias.





An Afghan Air Force example with added side armour



Operators

Afghanistan - The first A-29 Super Tucano of the Pentagon's Light Air Support (LAS) program, destined for the Afghan Air Force, was been delivered to the US Air Force in Jacksonville, in September 2014. The first four aircraft arrived in country at Hamid Karzai International Airport in Kabul on the 15 January 2016. Four more are to be delivered in 2016. These aircraft have additional armour plates on the cockpit fuselage sides.

Angola – Six aircraft ordered, three delivered.

Brazil – Ninety-nine aircraft ordered, four lost and they equip four units and the 'Smoke Squadron' demonstration team

Burkina Faso – Three aircraft delivered.

Chile – Twelve aircraft equipping one squadron

Columbia – Twenty-five aircraft equipping three squadrons

Dominican Republic – Eight aircraft equipping one squadron

Ecuador – Eighteen aircraft equipping two squadrons

Indonesia – Sixteen aircraft ordered, two delivered at time of writing.

Mauritania – Four aircraft order and two received at time of writing.

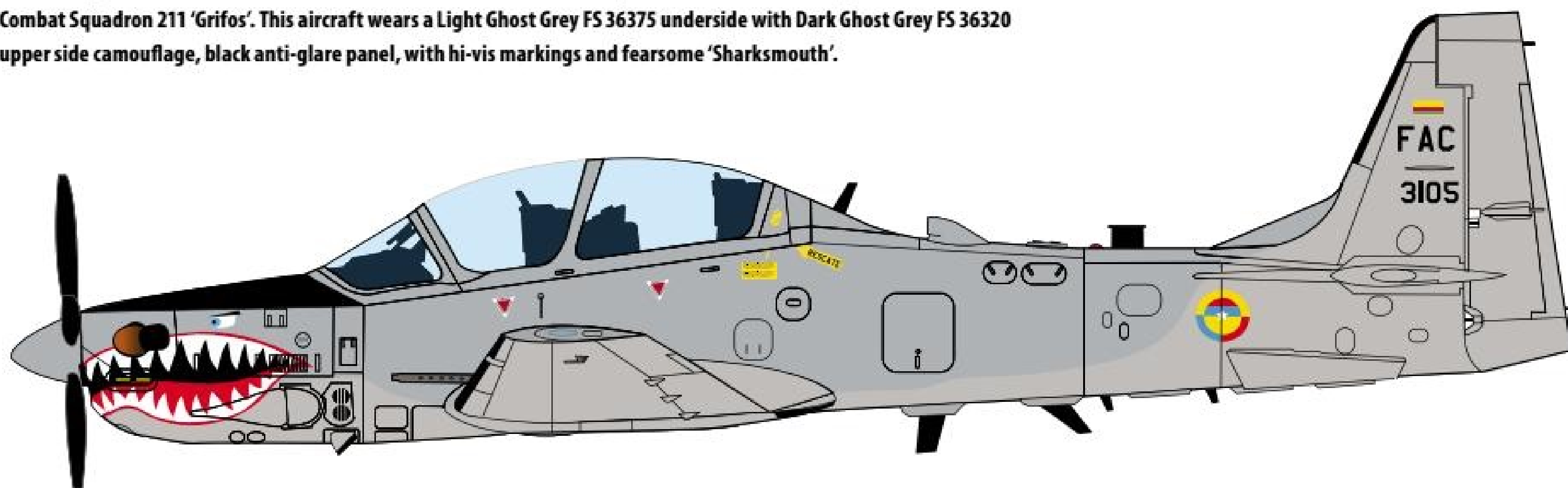
Further orders have been received from Ghana, Honduras, Lebanon, Mali and Senegal. **MA**

A Dominican Republic
COIN Super Tucano

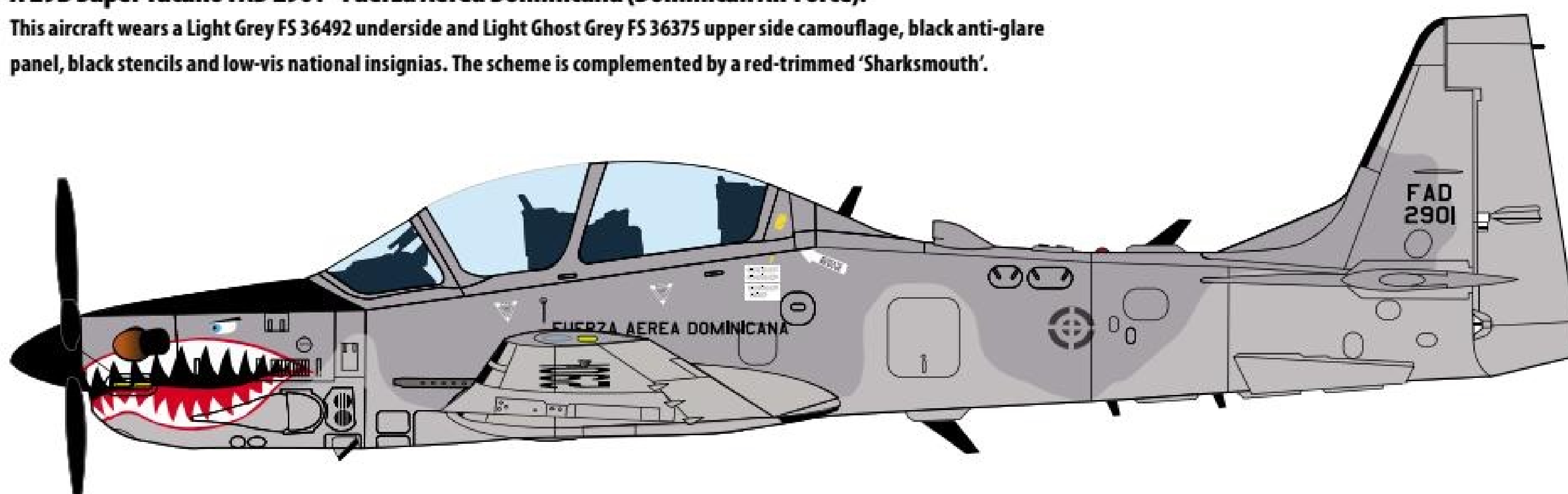


A-29B Super Tucano FAC 3105 - Fuerza Aérea Colombiana (Colombian Air Force)

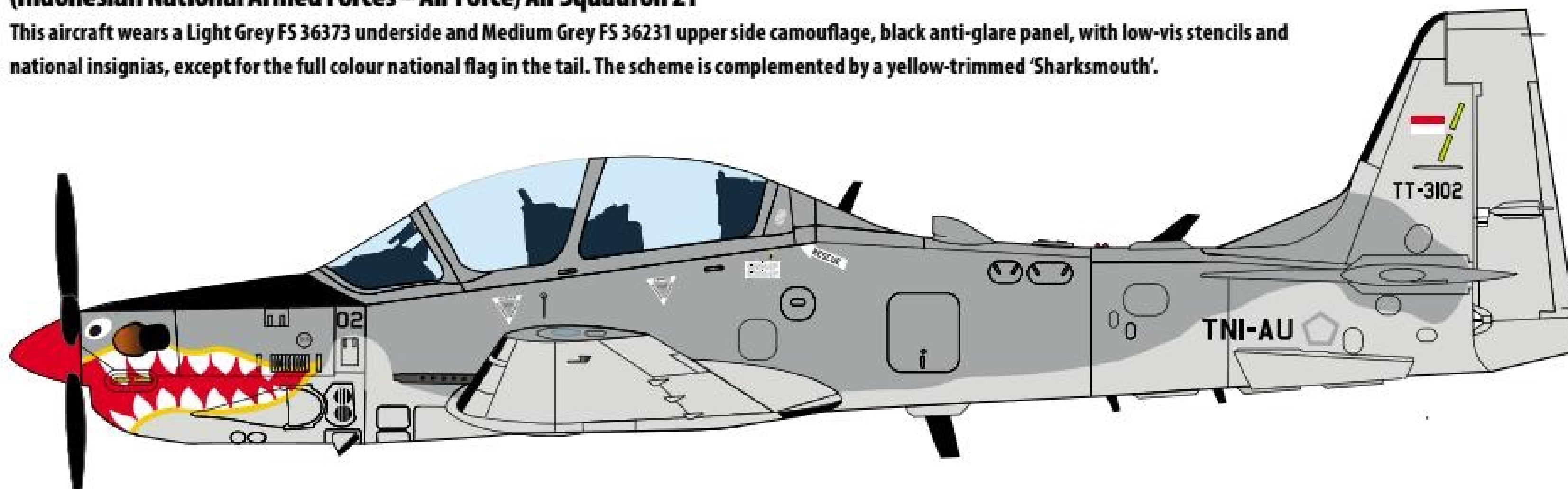
Combat Squadron 211 'Grifos'. This aircraft wears a Light Ghost Grey FS 36375 underside with Dark Ghost Grey FS 36320 upper side camouflage, black anti-glare panel, with hi-vis markings and fearsome 'Sharksmouth'.

**A-29B Super Tucano FAD 2901 - Fuerza Aérea Dominicana (Dominican Air Force).**

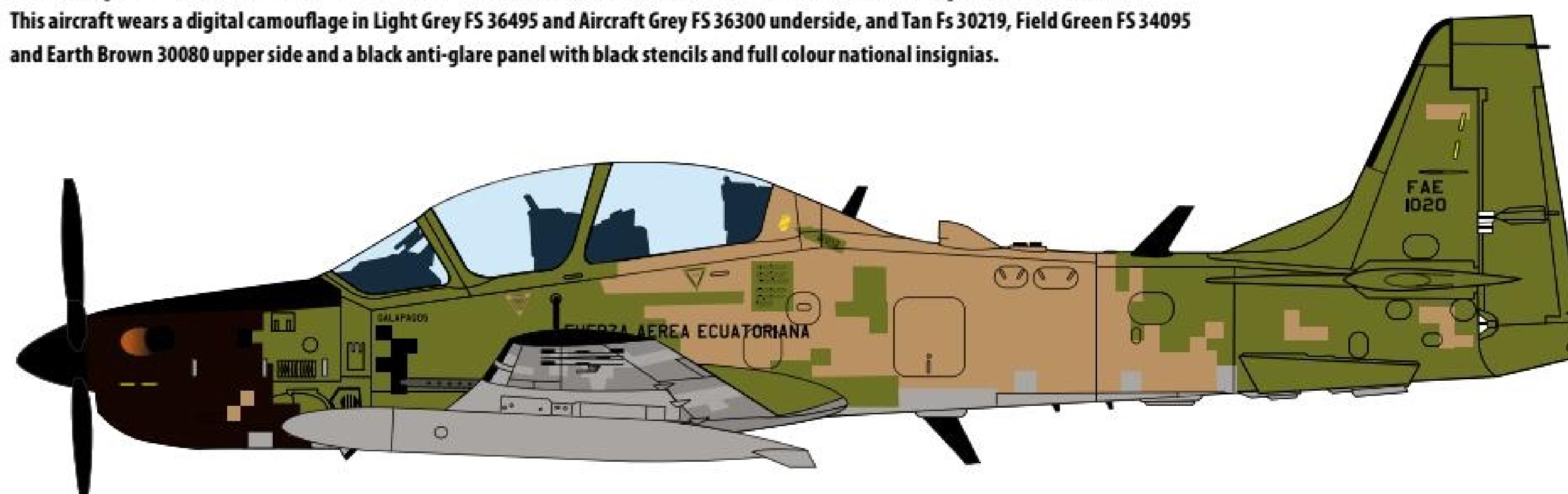
This aircraft wears a Light Grey FS 36492 underside and Light Ghost Grey FS 36375 upper side camouflage, black anti-glare panel, black stencils and low-vis national insignias. The scheme is complemented by a red-trimmed 'Sharksmouth'.

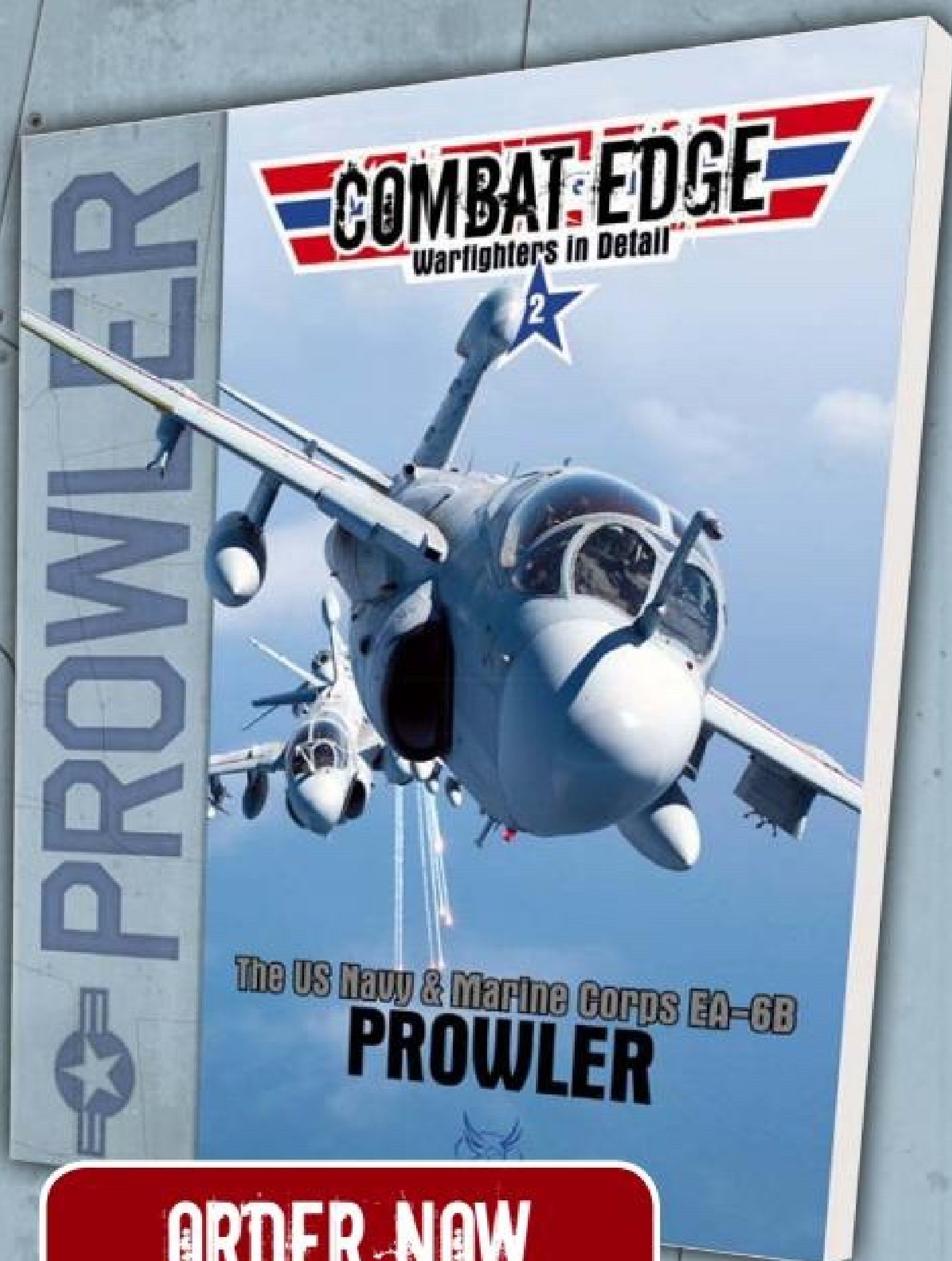
**A-29B Super Tucano TT-3102 - Tentara Nasional Indonesia - Angkatan Udara, TNI-AU (Indonesian National Armed Forces – Air Force) Air Squadron 21**

This aircraft wears a Light Grey FS 36373 underside and Medium Grey FS 36231 upper side camouflage, black anti-glare panel, with low-vis stencils and national insignias, except for the full colour national flag in the tail. The scheme is complemented by a yellow-trimmed 'Sharksmouth'.

**A-29B Super Tucano FAE 1020 - Fuerza Aérea Ecuatoriana (Ecuadorian Air Force), 2313 Squadron 'Halcones'.**

This aircraft wears a digital camouflage in Light Grey FS 36495 and Aircraft Grey FS 36300 underside, and Tan Fs 30219, Field Green FS 34095 and Earth Brown 30080 upper side and a black anti-glare panel with black stencils and full colour national insignias.





ORDER NOW
JUST £9.99 PLUS POSTAGE

OUT NOW!
EA-6B PROWLER
THE SECOND BOOK IN
A NEW SERIES FROM
SAM PUBLICATIONS



Combat Edge – 1
Warfighters in Detail #1
US Marine Corps AV-8B Harrier

The incomparable AV-8B Harrier is one of the most iconic aircraft to have served with the US Marine Corps. This new book looks at the background of the Harrier in US service, and details the AV-8B, AV-8B Night Attack variant, the radar equipped Harrier II Plus and the TAV-8B two seat trainer. The book looks in at the role of the Harrier in the US Marine Corps, its use in combat from Operation 'Desert Storm' to current employments in Afghanistan and beyond. Using top quality photography, walk arounds, in-detail images and colour artwork the Harrier is shown in detail, making this a unique guide to the aircraft for both the enthusiast and the modeller alike.

84 Pages | 200mm x 240mm | Full Colour | £9.99



OUT NOW!

ORDER HOTLINE: 44 (0)1234 211245
ORDER ONLINE: www.sampublications.com



MODEL AIRCRAFT EXTRA



Defenders of the South

Republic Of Korea Air Force F-16s

The Republic of Korea Air Force (RoKAF) operates a total of 180 F-16C/D aircraft, and was the second air force to fly the type. South Korea has both Block 50 and Block 52 aircraft, which are locally designated as the KF-16, and is the 5th country with an F-16 production line. The Republic of Korea, or South Korea as it is often referred to, faces a heavily armed North Korea and counter this threat, in the early 1980s South Korea started looking for a third-generation fighter to expand its fleet of combat aircraft, which consisted primarily of F-4D/E Phantoms and F-5E Tiger II fighters.

Peace Bridge I

In December of 1981, the Republic of Korea signed a letter of agreement for the purchase





of thirty-six F-16C/D Fighting Falcons under the 'Peace Bridge I' Foreign Military Sales program, and four more F-16D Block 32's were ordered in June of 1988.

Peace Bridge II

In the more ambitious 'Korean Fighter Program' the F-16 lost out to the F/A-18 Hornet at first, as on December 18 1989, the Korean government announced that they were going to acquire 120 examples of the Hornet. The decision was based in part on a lucrative offset offer under which most of the F/A-18s would be manufactured in Korea. However, the

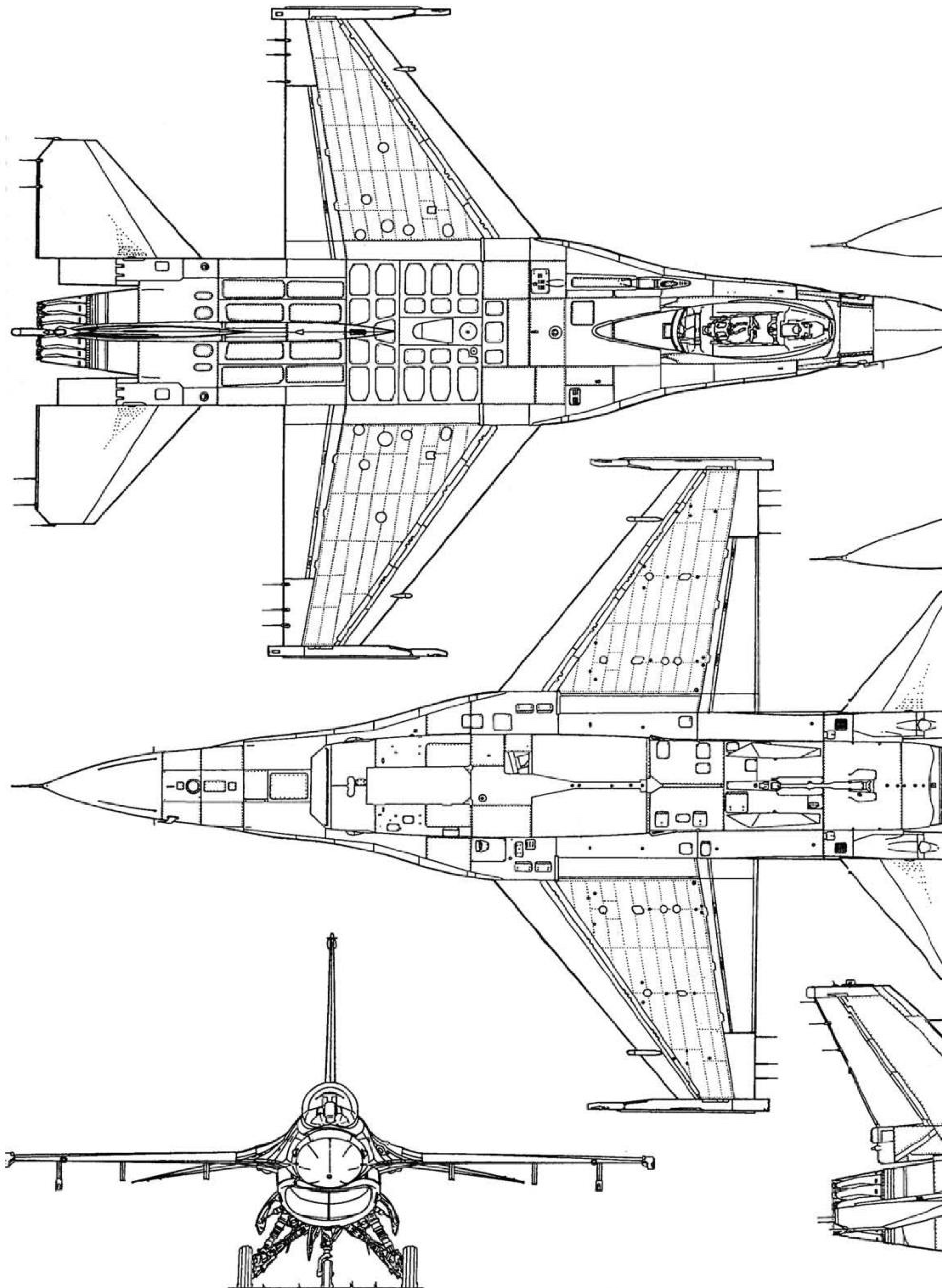
planned purchase was bogged down in funding technicalities, and Korea opted for 120 more F-16s instead, all manufactured to the Block 52 standard with upgraded avionics and Pratt & Whitney F100-PW-229 IPE engines. Under the terms of the agreement, Lockheed Fort Worth would manufacture the first twelve aircraft, the next thirty-six would be will be delivered in kit form and assembled in South Korea, and the last seventy-two would be built in South Korea by Samsung Aerospace. As a result, South Korea took delivery of the first of these (LMTAS-built) aircraft on December 2nd, 1994.

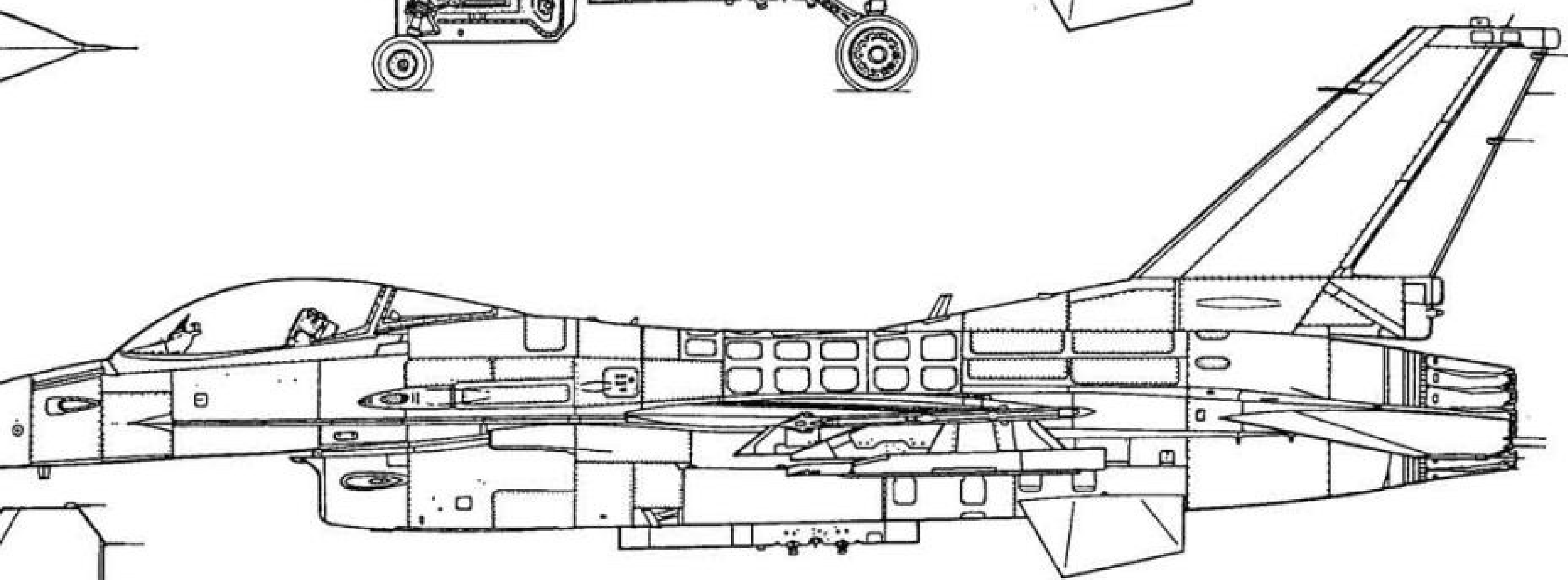
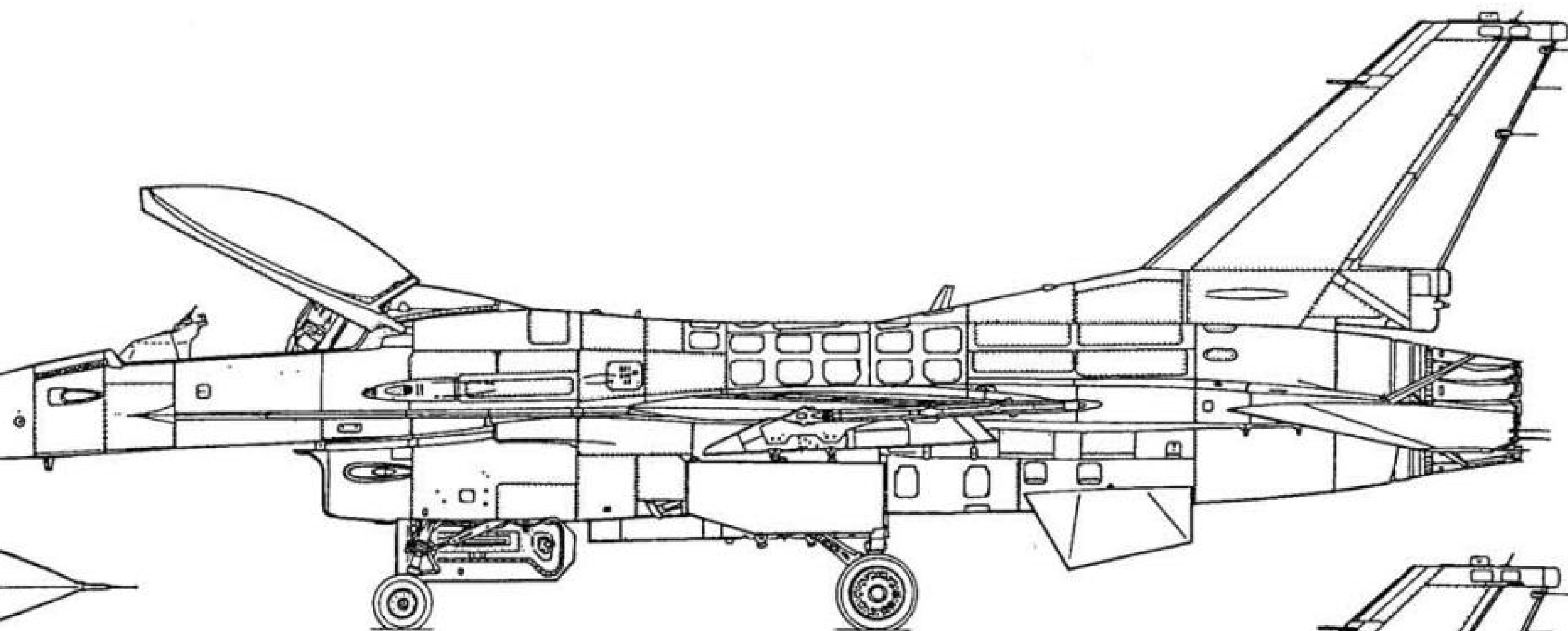


Peace Bridge III

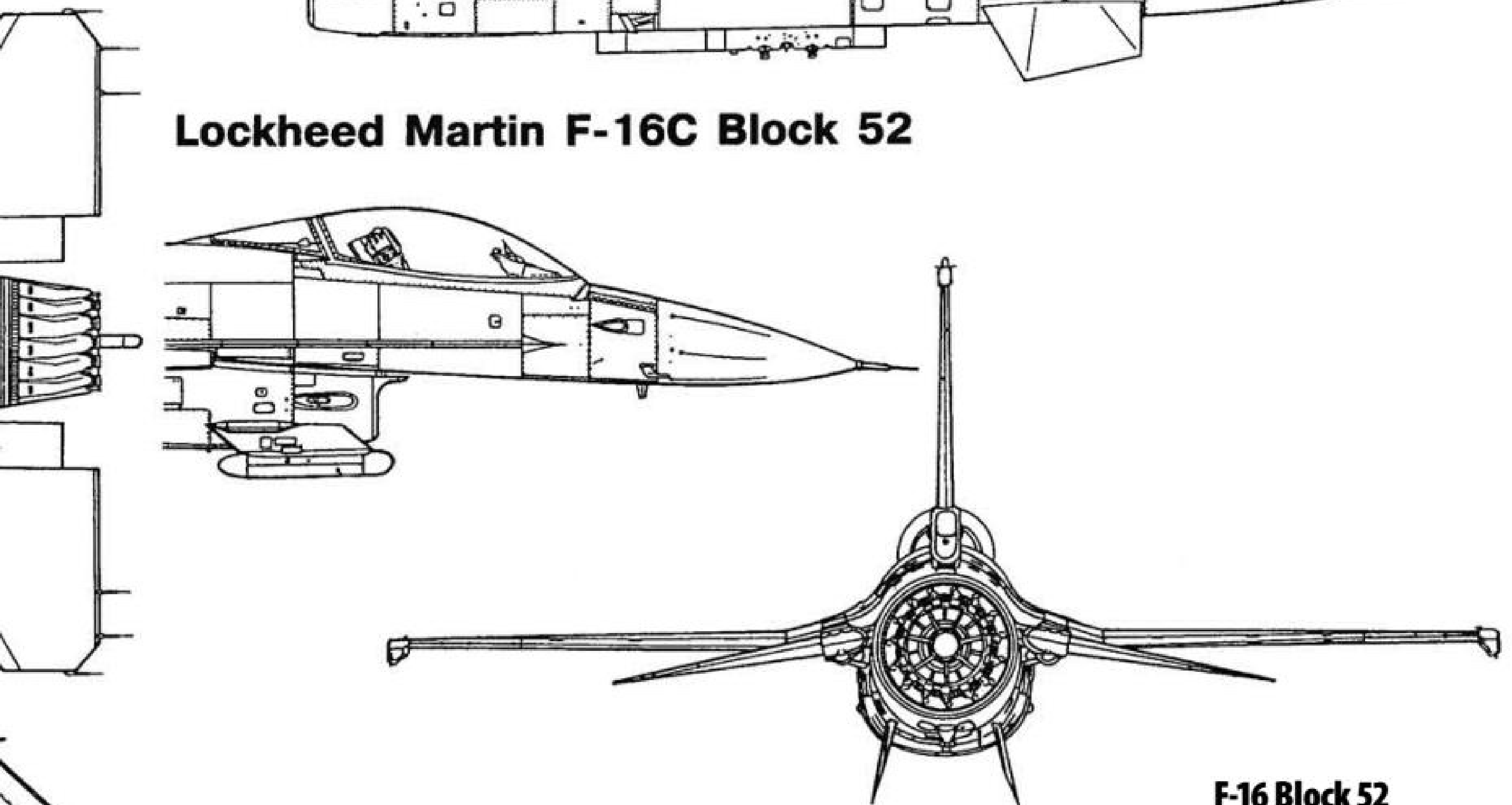
On July 27th, 2000, the South Korean government decided to buy another twenty F-16s, consisting of fifteen C's and five D's, all of the advanced Block 52 version. The Block 52 machines were equipped to carry the LANTRIN night navigation/targeting pod system and were able to carry the AIM-120 AMRAMM and the AGM-88 HARM as well as the AGM-65 Maverick and AIM-7 Sparrow and the JDAM munition. South Korea was also the first international customer to incorporate the AN/ALQ-165 Airborne Self-Protection Jammer in its F-16s. ASPJ is a state-of-the-art internal electronic countermeasures system used to defeat or degrade tracking by threat radar systems and enhance the survivability of the F-16 in combat. In late 2015 South Korea's Defence Acquisition Programme Administration (DAPA) has announced its formal selection of Lockheed Martin to upgrade 134 of their F-16C/Ds, which includes installation of Northrop Grumman's AN/APG-83 scalable agile beam radar. The programme, which also features the modernisation of the aircraft's avionics, networking capabilities and weapons fit, will cost approximately \$1.5 billion.





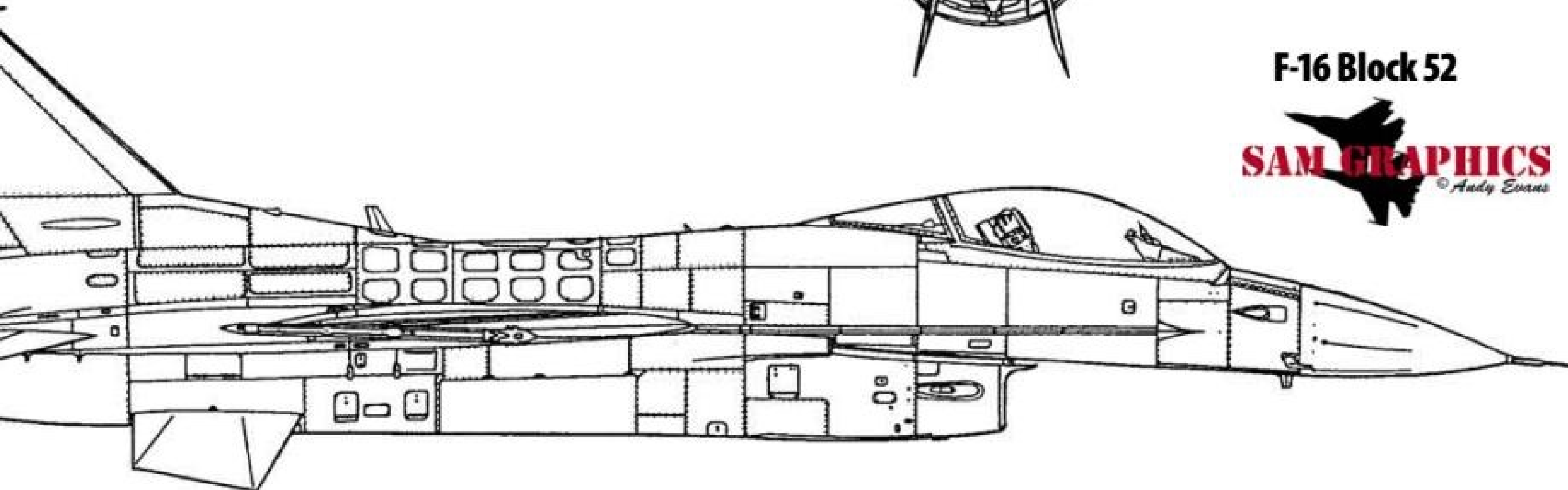


Lockheed Martin F-16C Block 52



F-16 Block 52

SAM GRAPHICS
© Andy Evans



Standing Guard

Sunhwie Hwang builds an RoKAF F-16D using the 1:48 Kinetic kit and Aires accessories

For this build I used the Kinetic F-16D (two in one kit), which builds up very nicely. Whilst not ostensibly an RoKAF F-16D Block 52, I added a few aftermarket items to bring the model up to standard. In the 'office' I added an Aires F-16C/D Cockpit set, and on the fuselage I added an Aires Wheel Bay and also an Aires F-16C/D Block 52 Exhaust nozzle as well as a Crossdelta Stiffener plate set. For the markings I used Hobby Decals 1:48 RoKAF Sheet #48027, and you will see from the tail that this the machine modelling has had its original tail number replaced with a subsequently lighter panel being evident. I wanted to show a heavily



F-16D Viper

Manufacturer: Kinetic

Scale: 1:48

Kit Type: Plastic injection moulded

Kit Number: 48005

armed aircraft and some of the weaponry all came from my 'spares-box' and I added a few additional items from a Hasegawa weapons set. The model built up very nicely and I decided to base my example on an aircraft that took part in the 2008 'Ulchi Freedom Guardian Exercises'. These exercises took place during the August to October period and this is in the 'yellow sand storm' monsoon season, and



I decided to base my example on an aircraft that took part in the 2008 'Ulchi Freedom Guardian Exercises'





a lot of the participating aircraft were covered in this dust. So I wanted to show an aircraft that had been through such an experience and you can see from the end result that the F-16 has a distinctive dusty and sandy finish, which was achieved using various pigments and washes. This was a thoroughly enjoyable project that I hope you will like! **MA**



THE SEPECAT JAGUAR

A COMPREHENSIVE GUIDE

British, French & International Versions

Cover for illustration
purposes only

By Andy Evans

Born out of Anglo-French accord and later discord, the SEPECAT Jaguar became one of the most capable and formidable fast jets of the 20th Century. The Jaguar has served with distinction in the Close Air Support and Reconnaissance roles with the Royal Air Force and Armée de L'Air, and enjoyed some export success with Oman, Ecuador, Nigeria and India, who are now the last operators of the aircraft. Slated for retirement from RAF service in the early 1990's, the Jaguar was suddenly thrust back into the spotlight with the Gulf War, and proved to the decision makers just what a capable and versatile aircraft they had, and one worth future investment rather than just the scrapman's torch. This new Datafile from SAM Publications is not only an account of the Jaguar's airframe, operators, roles and systems, but also a celebration of a much-loved aircraft, and one sadly missed in our skies. Includes full details of the aircraft in service, comprehensive walk arounds, colour profiles, scale plans and how to model the Jaguar in popular scales.

THE BIG
CAT
IS BACK!



**MDF 27
JAGUAR
£19.99
+£3.00 P&P**



**ORDER HOTLINE: 44 (0)1234 211245
ORDER ONLINE: www.sampublications.com**



Eyes in the Sky

Rob Ludlow builds the 1:72 Revell AVRO Shackleton AEW.2

As a fresh faced Air Cadet in the late 1980s I have fond memories of attending annual camp at RAF Lossiemouth in Scotland. Though the base was home to several fast jet types, there was one aircraft that stood out for me...the AVRO Shackleton! Compared to the aircraft of the day, the Shackleton resembled a throwback from the days of World War II but looks are deceiving and it played an important role in the nation's air defence. From then on though the Shackleton became one of my all time favourite aircraft, and when I had the opportunity to build Revell's recently released kit I jumped at the chance. The kit has 193 parts and is moulded in Revell's customary light



Manufacturer: Revell
Scale: 1:72
Kit Type: Plastic injection moulded
Kit Number: 04920

grey plastic with some fine recessed surface details. The Shackleton was often referred to as 'a hundred thousand rivets flying in close formation' and Revell have done a good job in portraying this, though the riveting was a little soft on some areas of the fuselage. It is also nice to see Revell moving with the times by providing their instruction manual in full colour. A comprehensive decal sheet is provided for two Lossiemouth based No.8 Squadron aircraft in overall Dark Sea Grey camouflage.

Construction began with the cockpit and this is relatively well detailed with the instrument panel and seatbelts represented by decals.





However, I chose to add my own seatbelts from strips of fine masking tape painted to suit. There is some basic internal detail provided within the rear fuselage but once the halves are closed up not a lot can be seen in any event. The fuselage deck incorporates wing spars that will help to align the wings and also forms the weapons bay roof. After joining the fuselage halves together and allowing a day or two for the cement to fully cure, Gunze Mr Surfacer 500 was applied along the seams and sanded smooth. Inevitably, some of that nice rivet detail was lost but with a riveting tool and plenty of patience I managed with some success to reinstate it.

Wing construction was relatively straightforward with a nice level of detail in the undercarriage bays that will benefit from a wash. I would recommend that the engine intake detail is painted and dry brushed prior to fitting to the nacelles, as it will be difficult to do this afterwards. The nacelles then fit snugly to the wings with just a skim of Mr Surfacer needed

to fill the fine joins lines, and the spars attached to the fuselage decking provide a strong wing to fuselage join. The weapons bay detail is good and if you choose to depict it open it will again benefit from a wash, as the Shackleton's weapons bay continued to be utilised when it was modified to undertake the airborne early warning role, and carrying Lindholme Gear it regularly practiced the search and rescue role. Unfortunately, you will have to source the Lindholme Gear containers if you wish to model

With a wingspan of over 500mm this model certainly conveys the imposing look of the real aircraft



The Shackleton AEW.2

The Avro Shackleton was developed from the Avro Lincoln and was adapted as a 'stop-gap' Airborne Early Warning (AEW) aircraft for the RAF, until replaced by the E-3 Sentry in 1990. In 1971 Twelve MR.2s were converted at Woodford and Bitteswell as Airborne Early Warning aircraft, and the first AEW.2 flew on 30 September 1971 with the type entering service with No.8 Squadron on 1 January 1972. The intended replacement for the Shackleton AEW.2 was the Nimrod AEW3, but considerable development difficulties culminated in the type being cancelled in favour of an off-the-shelf purchase of the Sentry, which allowed last Shackletons to be retired in 1991.



the aircraft in this configuration.

The model has a lot of glazed areas that required masking off prior to the painting, and I would recommend purchasing Eduard's #EDCX439 Canopy and Wheel Mask Set specifically for this kit as it will save you a great deal of time. I didn't and it took me a good evening to complete the task! The model received an overall coat of Mr Hobby H331 RAF Dark Sea Grey, and Tamiya's X-22 Clear gloss was then applied in readiness for decaling. Unfortunately, there were some registry problems on the decal sheet provided with the kit and I therefore used the AEW.2 option on Xtradecal's Shackleton Part 1 #X72235 for the

main markings, however, the stencil data was taken from the kit sheet. The decals were sealed in by another coat of X-22 before a Dark Grey oil wash was applied to panel line detail. Vallejo's Acrylic Satin Varnish was then applied to seal everything in. My reference images revealed that the AEW version was well maintained, but I decided to use a little artistic license to break up the monochrome camouflage scheme by applying random streaking and weathering using a highly thinned mix of Tamiya's XF-68 NATO Brown and XF-85 Rubber Black.

Painting and applying the manufacturer's logo decals to all

24 propellers was a major task in itself and I was relieved when this was completed, and attaching the main undercarriage units and the undercarriage doors also proved to be a little tedious. The Shackleton AEW.2 carried various antenna blade configurations throughout its service life, some of which are not included in the kit so it is important to check your references. Plastic card and stretched sprue was used to represent the missing antenna most commonly seen in photographs. I put the finishing touches to the model by removing all masking, attaching the under wing pitot tubes and adding aerial cables from





knitting elastic.

The kit builds into a nice replica of an aircraft that played an important part in British aviation history, and with a wingspan of over 500mm in 1:72 it is a large model and conveys the imposing look of the real aircraft. Overall, the kit went together well and made for an enjoyable build, and it's good to see Revell producing kits of classic aircraft such as the Shackleton. **MA**



COMBAT-ZONE



The Heinkel He 111 was developed in the late 1930s for civilian and military use

Battle of Britain

BOMBER

Anthony Tucker-Jones examines the development of the Heinkel He 111 famed for its role in 'Eagle Day'

During the Battle of Britain the Luftwaffe's He 111 medium bomber became a familiar sight to Londoners, and was the main type used in raids against Britain in the summer of 1940. At the start of the Second World War the He 111 bore the brunt of

the Luftwaffe's tactical bombing campaigns in Poland in 1939, Norway and Denmark in April 1940, France and the Low Countries in May 1940 and then against Britain in July-August 1940. The first prototype of what became the Heinkel He 111 piloted by Flugkapitän Gerhard Nitschke flew



During the early Blitzkrieg campaigns the He 111 proved an effective weapon



This He 111 was brought down over England in the summer of 1940



A Luftwaffe navigator/bombardier ponders his best route to the target



Ground crew prepare their He 111 for a bombing mission



The He 111 had a crew of five including the pilot

on 24 February 1935 at Rostock-Marienehe. Three further prototypes followed with the second and fourth designed as civilian versions and the third a bomber. The He 111C airliner and the He 111G transport aircraft entered service with Lufthansa in the late 1930s.

In the meantime, 10 He 111A-0 military preproduction versions were built. This had a

longer nose than the third prototype and was armed with three MG-15 machine guns in the nose, dorsal and ventral positions. Trials with these aircraft showed them to be underpowered with inadequate handling. All ten were rejected by the Luftwaffe and subsequently sold to China. A fifth prototype flew in 1936 powered by two 1,000hp (746-kW) Daimler Benz 600A engines

and was much more promising. It was followed by the He 111B-1 and He 111B-2 production models. Only a few 111D were built due to the diversion of the required engines to fighter construction. Junkers Jumo engines powered the subsequent 111E and 111F. The early models of the 111 had elliptical wings, whereas the 111F was the first to feature a straight leading edge. The He 111P model that appeared in mid-1939 was powered by two 858kW (1,150hp) Daimler Benz 601Aa engines. It also introduced a fully glazed asymmetric nose, with its offset ball turret, in place of the stepped-up cockpits of the earlier variants. Not many 111Ps were completed before production was switched to the He 111H.

The major production version proved to be the H series, which was built, in many different variants. The initial H-0 and H-1 were basically the same as the earlier 111P-2s except for the installation of 1,010hp (753-kW) Jumo 211A engines replacing the DB 601. The He 111H-2 which appeared in the autumn of 1939 had Jumo 211A-3 engines and carried two additional machine guns, one in the nose and one in the ventral gondola. The H-3 was armoured and armed with a 20mm MG FF cannon and an MG



The He 111 was designed as a tactical bomber and suffered heavy losses during the long range raids over Britain



In August 1940 the Luftwaffe lost almost 90 He 111s attacking Britain

During the Battle of Britain bomber groups had to fly in close formation for mutual protection



15 in the ventral gondola, two MG 15s in the nose, one mounted dorsally and guns in the beam positions. The H-3 and H-5 were later fitted with a nose mounted device to ward off barrage balloon cables and were subsequently re-designated the H-8. They were later converted into glider tugs as the H-8/R2. Efforts to increase the bomb load resulted in the H-16, which was introduced into service in the autumn of 1942. Similar to the H-11 it could carry up to 3,250kg of bombs. This extra weight came at a price and the aircraft required the R-Geräte rocket assisted take-off equipment to get it off the ground. The H-18 was designed as a pathfinder with exhaust flame dampers to help conceal it during night-time operations.

The standard crew of the He 111 was five, consisting of the pilot, navigator/bombardier and three gunners, one of whom also served as the radio operator. The pilot was seated offset to port in the glazed nose section, with the navigator/bombardier sitting next to him on a folding seat for take-off and landing. During the bomb run the navigator/bombardier would lay on a pad in the extreme nose, in order to use the bombsight. He also operated the nose gun. By the autumn of 1944 over 7,000 He 111s had been built for the Luftwaffe. Designated the CASA 2.111 Spain also built a total of 236 111Hs both during and after the war; around 130 of these had Jumo 211F-2 engines whilst the rest were powered by the Rolls-Royce Merlin 500-29. The first operational Luftwaffe squadron was with Kampfgeschwader or Bomber Group 154 based at Fassberg, which received its first deliveries in 1936. Early the following year thirty He 111B-1s were sent to join the German Condor Legion supporting Franco's Nationalists in Spain. These bombers served with Kampfgruppe 88 alongside other German aircraft types including the Bf109B, H 51 and Ju 52. The latter was used for bombing operations but proved vulnerable to the newly arrived Soviet fighters flying in support of the Republicans.

Although a trials squadron was ready in July 1937, re-equipping K88 with the 111B took time and the conversion of its three original squadrons was not completed until July 1938. The Condor

Legion were equipped with 67 Ju 52s and those that survived were gifted to the Nationalists. To replace them in a bombing role a total of 97 He 111s were supplied to the Condor Legion, consisting of 61 111B and 36 111E. In contrast just 32 Dornier Do 17 bombers were sent to Spain. The experiences of the Condor Legion confirmed to the Luftwaffe that instead of developing a long range heavy bomber force for strategic operations, they would concentrate on building

up a twin-engined medium bomber force that would support German ground forces forming a key component of the Blitzkrieg. This meant that the He 111, Do 17 and 215 and the Ju 88 were all medium bombers not intended for attacking targets at long distances.

Although the Heinkel He 111 medium bomber acted as a reliable workhorse for the Luftwaffe in the early Blitzkrieg campaigns, during the Battle of Britain it proved vulnerable to agile British fighters. The German bombers' radius of operation in daylight was limited by the distance their fighter escort could cover. Although an excellent fighter the Bf109 was designed for close support not long range escort duties. Its pilots had just minutes in the combat zone before they were forced to fly back across the English Channel. The twin engine Me 110, designed primarily as a long range escort was almost totally outclassed by the RAF's Hurricanes and Spitfires. Ironically the Me 110 had to rely on the 109s or fly defensive circles when engaged leaving the bombers to fend for themselves.

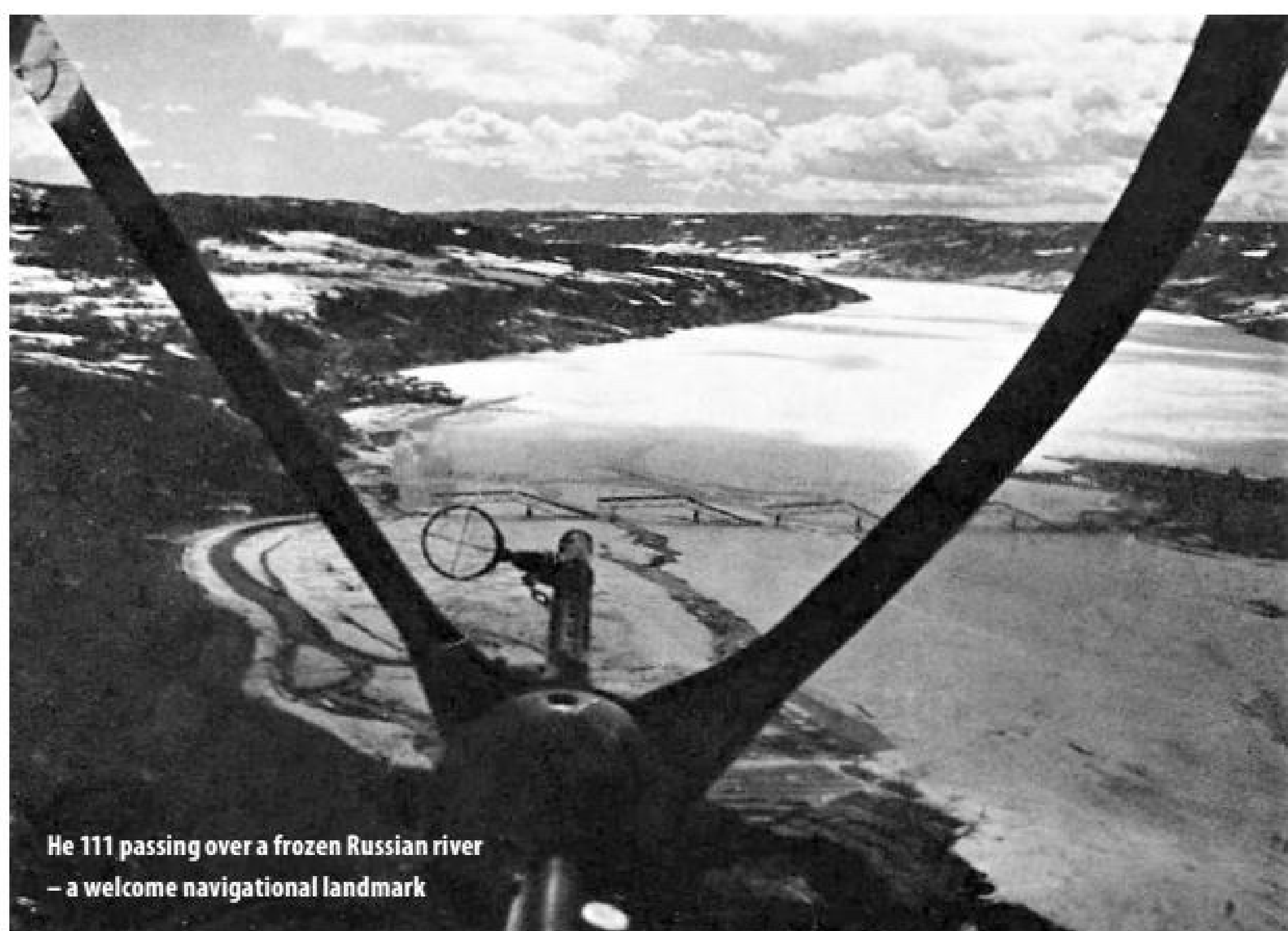
In an effort to stave off RAF fighter Command the He 111 and other German bombers flew in very tight formations to provide mutually covering fire with their machine guns. Luftwaffe pilot Ernest Wedding recalled, 'I flew my Heinkel 111 bomber in formation and I had to



This white He 111 was photographed serving on the Eastern Front



In the depths of the Russian winter this He 111 is prepared for a mission



He 111 passing over a frozen Russian river
— a welcome navigational landmark

keep to my station. Even when British fighters started attacking me, I couldn't do any intricate manoeuvres within the formation or else I would crash into the other bombers. ... A bomber pilot had to be as steady as a bus driver.'

On 22 February 1940 two fighters from RAF Drem, including a Spitfire armed with cannons, almost captured a He 111P intact. It was intercepted just before midday off St Abb's Head, damaged and the rear gunner wounded. The pilot managed to make a forced landing at Coldingham but after the crew got clear they set fire to it before they could be stopped. Like the Dornier Do 17 the He 111 by 1940 was already facing obsolescence. It was too slow against modern fighters and slightly slower than the Do 17 and less manoeuvrable. However, it could carry twice the bombload. As a result a total of six German bomber groups (KG 1, 4, 26, 27, 53 & 55) equipped with the He 111 were involved in the battle. During July 1940 they lost 32 aircraft and three damaged. The following month eighty-nine were shot down and another fifteen damaged.

The He 111 was in the forefront of Operation 'Aldertag' (Eagle Day) on 13 August 1940, which was the opening of 'Alderangriff' (Eagle Attack) designed to destroy the RAF once and for all. The Heinkel's of KG 26 were tasked to attack RAF Dishforth, while KG 27 struck Bristol, Birkenhead and Liverpool. KG 53 attacked RAF North Weald and KG 55 hit Feltham, Plymouth and RAF Middle Wallop. Despite the size of the raids Aldertag failed to crush Fighter Command. Heinkel losses during the Battle of Britain forced the Luftwaffe to have a serious rethink and the bomber was switched to night operations and a variety of specialised support roles. Along with the Ju 52 transport aircraft the He 111 found itself bearing the burden of resupply operations on the Eastern Front. Most notably they were used to throw a lifeline to the German army trapped at Stalingrad between November 1942 and February 1943. Almost 200 were lost attempting to ferry ammunition and supplies into the German pocket. By the end of the war the He 111 had been relegated almost solely to a transport role its Blitzkrieg glory days long past. **MA**



In the skies over Britain the He 111 proved
very vulnerable to the RAF's fighters

HAND PICKED
FOR 2017



Build Your **Dream!**



07051
McLaren 570S, 1:24



03953
Spitfire Mk11a, 1:72



04995
Me262B-1 Nightfighter, 1:32

Available from all good model
stockists and online from Amazon

amazon.co.uk

Visit our website
WWW.REVELL.DE/EN

facebook.com/Revell @RevellGermany

Revell GmbH, Unit 10, Old Airfield Industrial Estate,
Cheddington Lane, Tring, HP23 4QR
Tel: 0845 459 0747, Fax: 01296 660041,
Email: ukbranch@revell.de
©2017 Revell GmbH. A subsidiary of Hobbico, Inc.
All rights reserved. Trade enquiries welcome.

REAL TO REPLICA



North American Rockwell OV-10 Bronco

The OV-10 Bronco, is a rugged, highly manoeuvrable, twin-turboprop, multi-mission aircraft, that served, and still serves in small numbers with the US Air Force, US Navy and US Marine Corps as the OV-10A/C and D. The Navy squadron VAL-4 'Black Ponies' flew them with much success in the Vietnam War, and the US Air Force used them as Forward Air Control aircraft and in the Light Armed Reconnaissance role in Southeast Asia. Internationally, the OV-10 served West Germany as the OV-10B, with Columbia as the OV-10A, with Thailand as the OV-10C, Venezuela as the OV-10E and Indonesia as the OV-10F.

The US Marine Corps OV-10D Night Observation Gunship System (NOGS) featured a unique night observation and target marking system that included a FLIR, and laser designator/ranger, with uprated 1040 SHP turboprop engines and fiberglass propellers. The NOGS provided greater range, improved performance and greater survivability. Military applications for which the Bronco was particularly suited include anti-guerrilla

operations, helicopter escort, close air support, armed reconnaissance and forward air control. In addition, it could be used for utility missions such as cargo paradrop — delivery of up to six paratroops, medical evacuation, smoke screening and psychological warfare with leaflets and loudspeakers. The Bronco's fuselage was mounted under the wing and provided tandem seating for pilot and observer, and its

canopy design afforded better visibility than that of most helicopters.

Each crewman is equipped with an LW-3B zero-zero ejector seat, and also fitted is armour protection, a bullet-resistant windshield and self-sealing fuel cells, ideal for operations in a hostile environment. The OV-10 has seven external store stations and four 7.62 mm guns installed in the sponsons, and a variety of



Broncos have been used in the fight against ISIS



The OV-10 was also operated at sea

conventional ordnance can be delivered in addition to 2,000 rounds of ammunition. The wing stations can carry the LAU-7/A launcher for mounting either rocket packages or missiles. The centreline store station could also carry either a 20mm gun pod or a external fuel tanks. For operation in remote areas, the Bronco has a specially designed rough field landing gear, required no ground equipment for starting and could be maintained with simple hand tools. In the event of an emergency, the Bronco could use high-octane or automotive fuel in place of jet fuel with only a slight degradation of power. In recent times Broncos were brought out of retirement to help US Special Forces in Iraq. A pair of OV-10 reportedly completed 134 sorties over eighty-two days in May to September 2015, acting as cover for the soldiers fighting ISIS terrorists on the ground. The aircraft involved



A grey clad USAF Bronco

were probably those that were part of the Navy Special Warfare's 'Combat Dragon II' program, and these aircraft were already highly upgraded to the unique OV-10G+ standard and would have received another round of heavy upgrades

including the latest in radios, sensors and defensive systems. The US military is currently testing the Broncos in Iraq and Syria to see if they can replace the more expensive F-15s and F/A-18s. **MA**



The sponsons can carry a variety of ordnance



One of the users was the Thai Air Force

REAL TO REPLICA



Bucking Bronco

Adam Challinger builds the 1:32 Kitty Hawk kit

I've always loved the Bronco, but as I mainly build 1:48th my options were limited to the old Hawk/Testors kit, which is not too accurate and also dates back to 1966! So when Kitty Hawk announced one in 1:32 I just had to get one. Upon opening the box it's clear that Kitty Hawk have come a long way in a short time, as they are a fairly new company. The kit has some excellent detail, such as raised rivets, and recessed panel lines. It's moulded in light grey plastic, this kit is presented on eleven sprues plus one of amazing sprue of clear parts, which come in their own

separate box, and an etched fret, and well as some essential white metal nose ballast weight. The kit comes with markings for four different colourful schemes, and there is no sign of any flash, and the paint callouts are for the Mr Color range. Construction of the kit is quite complex as there are a lot of sub-assemblies. A lot of the fuselage has various panels/doors that can be opened, as well as the engines. I opted to have one open and one closed, but still painted and detailed both engines.

The cockpit has some extremely nice detail



OV-10D Bronco

Manufacturer: Kitty Hawk

Scale: 1:32

Kit Type: Plastic injection moulded

Kit Number: 32003

and was straightforward to assemble, paint and decal. Next was the build up of the machine gun pods/weapon pylons on either side of the fuselage. At this stage you have to add the machine guns, which protrude from the openings, and I had to be very careful not to





snap these off throughout the build. After this it was time to add the glazing for the cockpit, and I initially thought the upper glazing panel might have presented a problem, as it looked an awkward fit, but I was happy to find that it went on with no issues at all. I left the side windows off at this time, as I wanted them all to be open so the cockpit could be displayed.

Next came the engines, and they build up into some very nicely detailed examples of Garrett T76's, and I added some wires to the one I was having on display. A few bits of etch were also added at this point and I was very pleased with how they turned out. Now it was time to bring it all together, but one thing to note is the wings joins are not amazing, and there's not a lot of plastic for them to sit on, so I added a length of plastic tube as a wing spar passing all the way through so each wing could sit on it and be lined up.

All of the colour schemes in the kit are excellent, I had a job choosing which one to go for but in the end I went with the three-tone Grey/Green/Dark Grey camouflage. The decals were excellent albeit thin, and I decided to spray on the walkway but I'm sure if I had used it, it would have been fine. Just a coat of Microsol

was needed to settle them down and a coat of Johnson's 'Klear' sealed everything in once dry. I didn't go for too much weathering on this one as I imagined they would have kept this aircraft fairly clean. So here I used a Flory Models 'Dark Dirt' panel line wash, followed by a few subtle streaks here and there. I also found out that the



kit undercarriage parts were very flimsy under the weight of the model, so I decided to order a metal replacement set from Scale Aircraft

Conversions. At the same time, I ordered some RBF tags from Eduard to add to the armament and a few places on the aircraft.

This was my first experience with a Kitty Hawk kit and it was a very pleasant one, and I will certainly be purchasing more in the future. **MA**

The kit has some excellent detail, such as raised rivets, and recessed panel lines





Royal Air Force Ventura

James Ashton tackles the recent 1:48 Revell Mk II kit

Revell are a company that have been producing model kits as long as most of the readers of this article have been alive! Certainly I think it is safe to say that alongside another well-known manufacturer their kits have been the staple of model makers the world over for generations. The expectations of modellers though have become ever higher in terms of ease of construction, accuracy and detailing. So to survive in this age of eastern high tech wonder kits you need to develop and compete and not rest on the 'laurels' of past glories. Ever the model makers champion Revell have been doing just so and the Ventura kit released a couple of years ago was a sign of this progress. We now have an RAF incarnation of this kit and this is the first time I have made a Ventura in any scale. The mouldings are crisp and free of any flash and the clear parts are particularly well made and free

of distortion. Of particular note are the very nice set of very clear instructions, which are now in colour making them a lot easier to follow and less confusing than the old black and white type. Two options are available in this kit and the decal sheet provided is of the usual high quality we have come to expect from Revell.

So onto the actual construction. I had an idea this was going to be a good build from the look of the kit, nothing quite prepared me though for just how good a kit this is to put together. It was virtually a snap fit the engineering is so good. Each time I anticipated a fit problem say for example the nose to fuselage join it simply did not arise. This all contributed to a quick hassle free build leaving you to focus on what for me is the most enjoyable part of modelling, the painting and weathering. The interior detail is adequate out of the box however I am sure the aftermarket chaps will not be far behind with



various internal detail sets. One area that may be worth investing in are some Master brass gun barrels. I had a set in my drawer and could not resist fitting them in the nose. Although the kit parts are good the finesse of these turned brass barrels is unsurpassed, if only I had more for



I do like the clearly printed colour instruction sheets that Revell are using. I think the way the colour call outs are done is particularly clever.



Revell's engineering makes for a very pleasurable and quick build. I found I only needed a small amount of filler along the starboard wing root



The decals are of good quality just make sure you apply them to a high gloss surface to avoid silvering. A set of masks would save time however the framing of the clear parts means that making your own masks is quite simple

the other guns. The decals for the markings are simple and straightforward as they were in the Second World War, these are of good quality with good colour saturation and fine carrier film. The Fuselage lettering has a large amount of carrier film so a high gloss finish and setting solution



Alclad II Mil Spec Enamels are superb for painting freehand camouflage it does not spit or clog the airbrush as it is so well pre-thinned

The build was virtually a snap fit, as the engineering is so good

are essential to prevent silvering. The most fiddly and complex part of the kit was the bomb bay doors if you choose to have them open. Care when handling the delicate actuators and fitting the doors is essential, however the excellent engineering of the kit once again saves the day. When it came to the camouflage I wanted to try the new Mil Spec Range from Alclad II. Being an airbrush ready enamel I had a suspicion

they would be good for freehand patterns and I was not wrong. Keep your pressure low and the paint flows smoothly without any spitting or clogging giving you confident control of the paint flow. I have to say I thoroughly enjoyed every part of this build and think I will add the US Pacific variant to my collection very soon. Revell continue to move with the times and the wishes of the Model Making community. Considering all



the different aspects that need to be addressed they have got a superb balance of quality engineering, ease of construction, accuracy, detail and interesting and desirable subjects. Combine this with affordable price tags that will attract both veteran and younger Modellers and you have a market-leading product. Well done Revell - keep up the good work. **MR**

The clear parts are particularly well made and free of distortion



The most fiddly and complex part of the kit was the bomb bay doors





BOOKWORLD

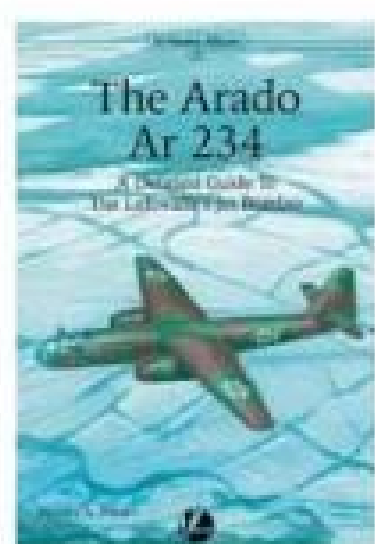
— wholesale —

Bookworld Wholesale Ltd.

Unit 10 Hodfar Road, Sandy Lane Ind Est,
Stourport, Worcs DY13 9QB

Tel: 01299 823330 Fax: 01299 829970

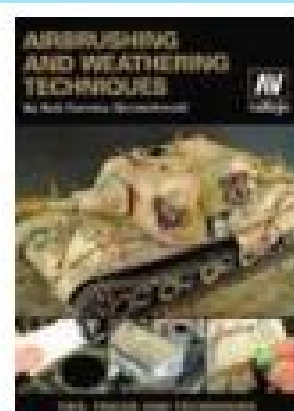
web: www.bookworldws.co.uk email: info@bookworldws.co.uk



Airframe Album 9

The Arado Ar 234. The ninth title in the Airframe Album series will be an essential companion for anyone tackling the Fly (1/32nd), Hasegawa (1/48th), Dragon and even the Frog kits in 1/72nd scale. 114 pages, period detail images, colour profiles and by Richard J. Caruana

£16.95



Airbrushing and Weathering Techniques.

The information in this book is the result of nearly twenty years working with Vallejo acrylic colors and auxiliary products and is meant to be used as a guide and reference. Chapters include Air brushes and Airbrushing Model Air Colours, Acrylic Surface Primer, Airbrushing Model Air Techniques, Basic Weathering Techniques, Advanced Weathering Techniques, Decals and Varnishes, Diorama-Vignette Bases and Stone Textures, Creating Wet and Water Effects Gallery, FAQ with Tips and Tricks, Colour Charts.

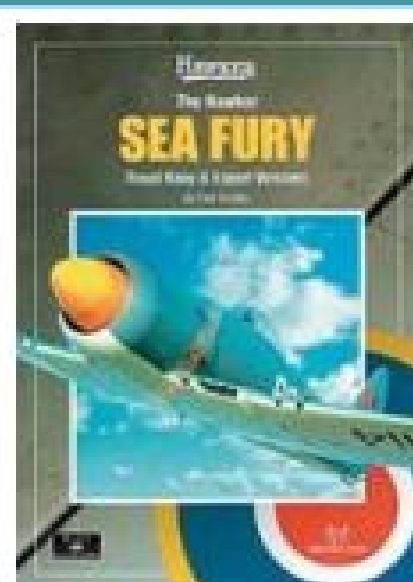
£22.99



Warplane 10. Fiat G.91.

The Fiat G.91 was an Italian jet fighter aircraft. It was the winner of the NATO competition in 1953 for a light fighter as standard equipment for Allied air forces. 56 pages, Black/White and Colour photos

£13.99



MDF Scaled Down 4

The Hawker Sea Fury. This new MDF Scaled Down from acclaimed author Paul Bradley brings to life the full story of the Sea Fury, with concise and authoritative text, historic photographs, colour artwork, a walk around and schematic diagrams.

£9.99



Warplane 11. Boeing B-47 Stratojet.

Built by Boeing, designated as B-47 and named the Stratojet it was a quantum leap in aircraft development. 56 pages, Black/White and Colour photos

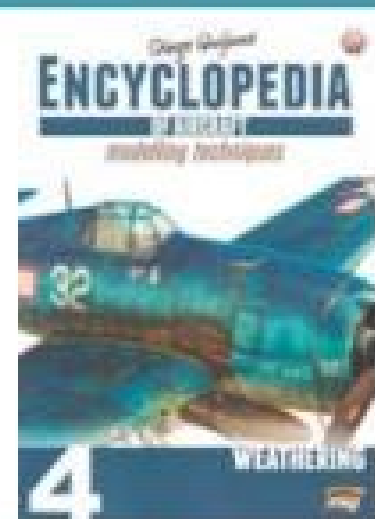
£13.99



Photosniper 24 Mi-28 Night Hunter

Mil design bureau, led by Mikhail Leontyevich Mil, was one of the leading soviet plants promoting combination of helicopters and firepower. Mil was personally involved in the development of pre-war A-7 autogyro equipped with machine gun for its own defence and two more for ground targets destroying 80 pages, 220 colour photographs, 4 painting schemes, Gloss coated paper.

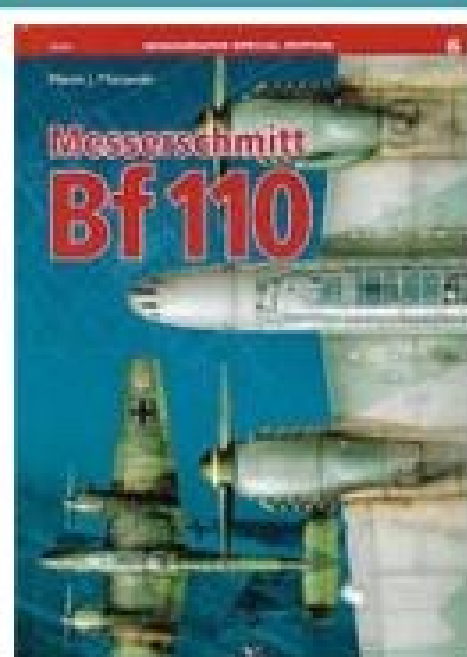
£19.99



Encyclopedia of aircraft 4 Weathering

Chapters include preparation, chipping, filters, dirt, grime and worn paint. Panel line and surface washes, general washes, Streaking effects, spill stains, exhaust stains, graphite effects, weathering effects with pigments, effects with colour pencils and extreme weathering and fading. 160 pages, full colour.

£28.99



Monograph Special 6.

Messerschmitt Bf 110 by Marek J. Murawski 240 pages 360 pictures 60 colour profiles 3 double-sided A3 sheets with colour profiles hardcover format A4 matt coated paper

£27.99



Horten Ho 229

Aircraft described as flying wing have aroused interest of the designers since the early, pioneer years of aviation. This definition is used to describe aircraft with specific design solutions, allowing for resignation from conventional vertical and horizontal empennage and primarily from conventional fuselage. 280 pages, 126 archival photographs, 300 renders, scale drawings 1/72, 1/48, 1/32. Hardcover

£36.99



Scratchbuilding Masterclass

Four of the best Scratchbuilders in the scale modelling world share their tips, tricks, techniques and advice in scales from 1/72 to 1/15 to help explain how scratchbuilding can open up a new world of modelling beyond kits alone. From superdetailing to full scratchbuilds their techniques will give you a basis to approach a huge range of subjects and will inspire you to start wrangling the plastic to get the most out of your modelling.

£15.00



French Secret Projects Volume One.

Period drawings, promotional art, photographs of prototype aircraft, mock-ups, wind tunnel and promotional models are all combined to present, for the first time in the English language, a complete view of French military aircraft design from the Liberation of France to the late twentieth-century.

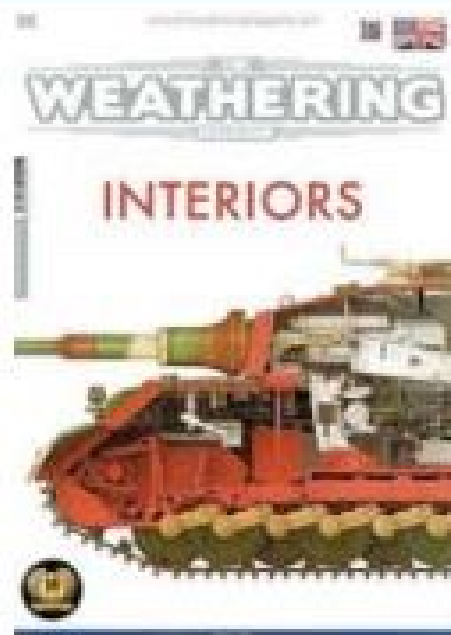
£27.50



10243. Messerschmitt Bf 109 in Action.

Packed with 200 vintage photos, line drawings, and colour profiles, the Messerschmitt Bf 109 in Action covers the entire career of the Bf 109 in all its versions and variations. 80 pages.

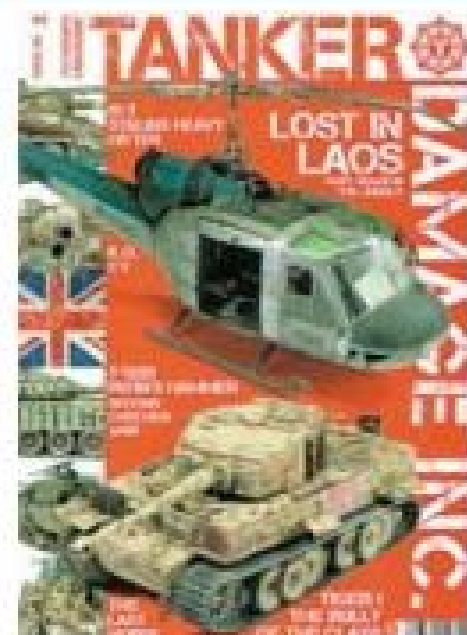
£14.99



The Weathering Magazine 16 Interiors.

The Weathering Magazine is the only magazine devoted entirely to the painting and weathering techniques of scale models and figures.

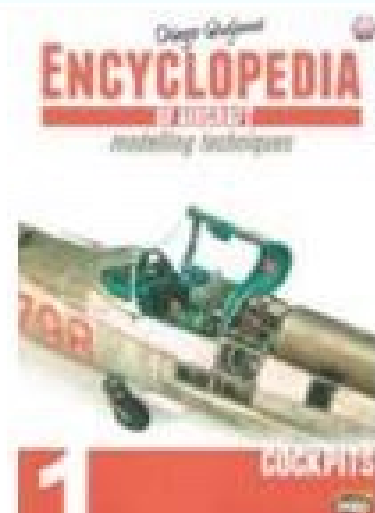
£8.99



Tanker Magazine Issue 4

Aptly named Damage Inc., the fourth issue showcases damage, and how master modelers recreate it utilizing a wide range of products and the latest techniques.

£8.99



Encyclopedia of Aircraft Modelling Techniques 1: Cockpits.

The definitive encyclopedia of model aircraft performed by the world famous modeler Diego Quijano and a selection of the best worldwide aircraft modelers, led by Mig Jimenez. Paperback, 123 pages, full colour.

£21.99



F-16 Fighting Falcon Viper under the skin

Over 400 photographs reveal every part of the F-16 from the cockpit to the engine bay, from the landing gear to the avionics. 'Viper Under The Skin' is the ultimate reference guide for the modern F-16 featuring all the new advances as the Conformal Fuel Tanks, the F-16D dorsal spine and state of the art ordnance.

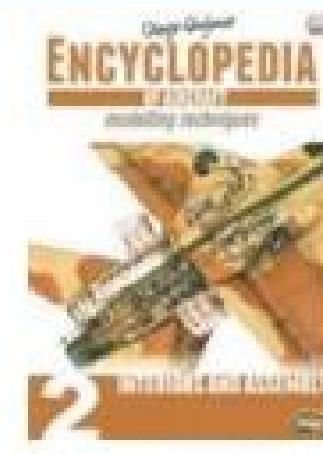
£19.99



F-4E Phantom II Phantom under the skin

Discover the mighty F-4E Phantom in this new unprecedented 'Under The Skin' series book! 108 pages and hundreds of photographs captured by one of the world's leading aviation photographers illustrate in extreme detail every corner of the jet. The book covers the F-4E AUP in Hellenic Air Force service but will also become a valuable reference asset for any gun nosed Rhino.

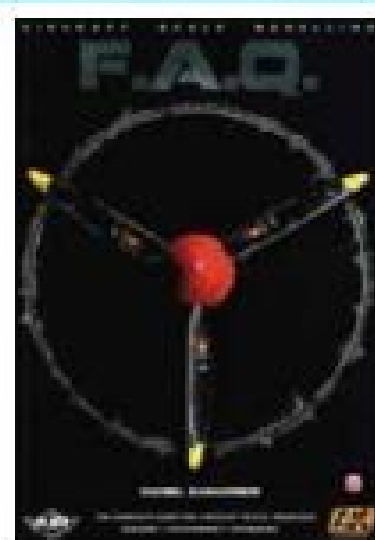
£22.99



Encyclopedia of Aircraft Modelling Techniques 2.

Interiors and Assembly. This second volume covers in depth through its 160 pages the following subjects: Assembly, preparation and painting of landing systems, including wheels, undercarriage and landing gear. From basic painting to the most advanced detailing, scratchbuilding, making pieces in metal and resin, etc. Detailed and painting of interiors of any aircraft. For example: open panels, avionics systems, kit parts, scratch-built and aftermarket kits.

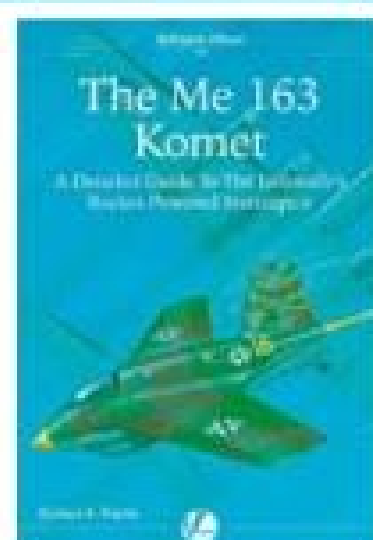
£28.99



Aircraft Scale Modelling. F.A.Q.

This book is a compilation of aircraft scale modelling techniques, step by step guides with hundreds of colour pictures for WWI, WWII, coldwar and modern aircraft, showing a wide range of painting and weathering techniques 380 pages, more than 2,500 images.

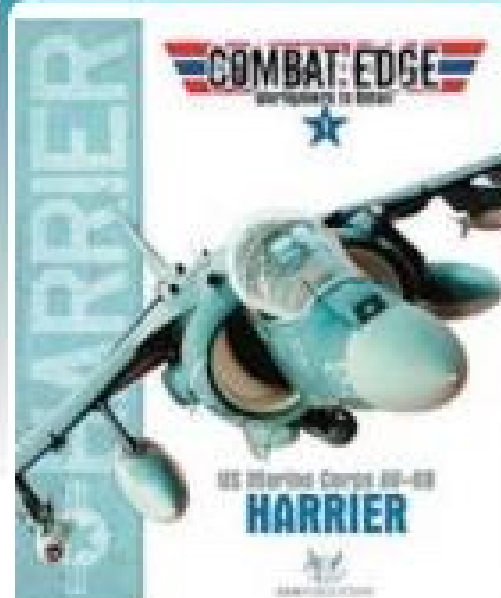
£47.99



Airframe Album 10. The ME 163 Komet.

The tenth title in the Airframe Album series is an essential companion for anyone tackling the Meng (1/32nd), Trimaster/Dragon (1/48th), Academy and even the older Airfix and Heller kits in 1/72nd scale. 114 pages, Colour Illustrations, colour profiles, line drawings

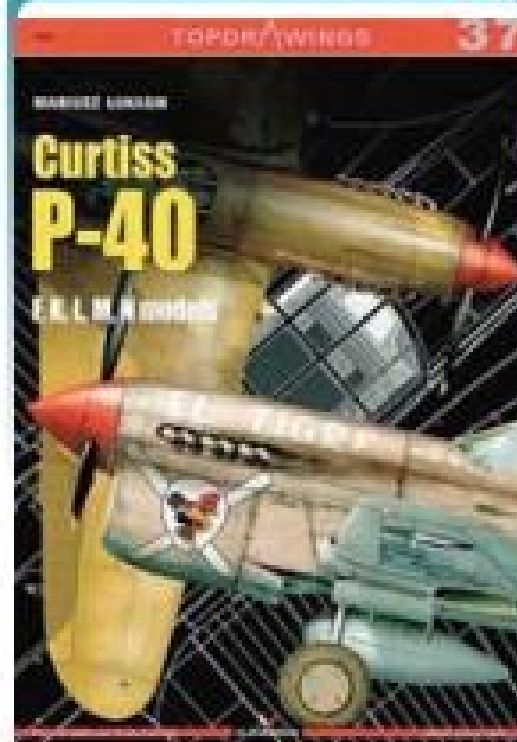
£16.95



Combat Edge 1. Harrier.

This new book looks at the background of the Harrier in US service, and details the AV-8B, AV-8B Night Attack variant, the radar equipped Harrier II Plus and the TAV-8B two seat trainer. 82 pages, full colour

£9.99



Top Drawings 37.

Curtiss P-40. Paperback, 27 pages, 28 sheets of scale drawings, 9 colour profiles

£17.99



X Planes 1. Bell X-1

In 1947, no one knew if it was possible to break the 'sound barrier'. The Bell X-1 was the tiny, rocket-powered craft that finally broke it. It was the result of innovative designers and engineers turning their attention from the pioneering jets of World War II to a new task: an aircraft designed purely to fly faster than sound. 80 pages, Black/White photo's colour profiles

£12.99



X Planes 2 Messerschmitt Me 264.

Dazzling digital artwork and 50 rare archive photographs perfectly complement the detailed analysis offered by Robert Forsyth as he examines the development, intended role and influence of the aircraft that Hitler planned to use to bomb New York City.

£12.99

YOU CAN VISIT OUR WEBSITE: www.bookworldws.co.uk

Stockists of the following subjects: Aviation, Military, Naval, Modelling, Railway, Motoring
Major credit cards accepted, UK cheques payable to Bookworld Wholesale Ltd

UK POSTAGE SINGLE BOOKS £2. 50

TWO OR MORE BOOKS £4. 50

OVERSEAS AIRMAIL PLEASE ADD 15% OF ORDER VALUE

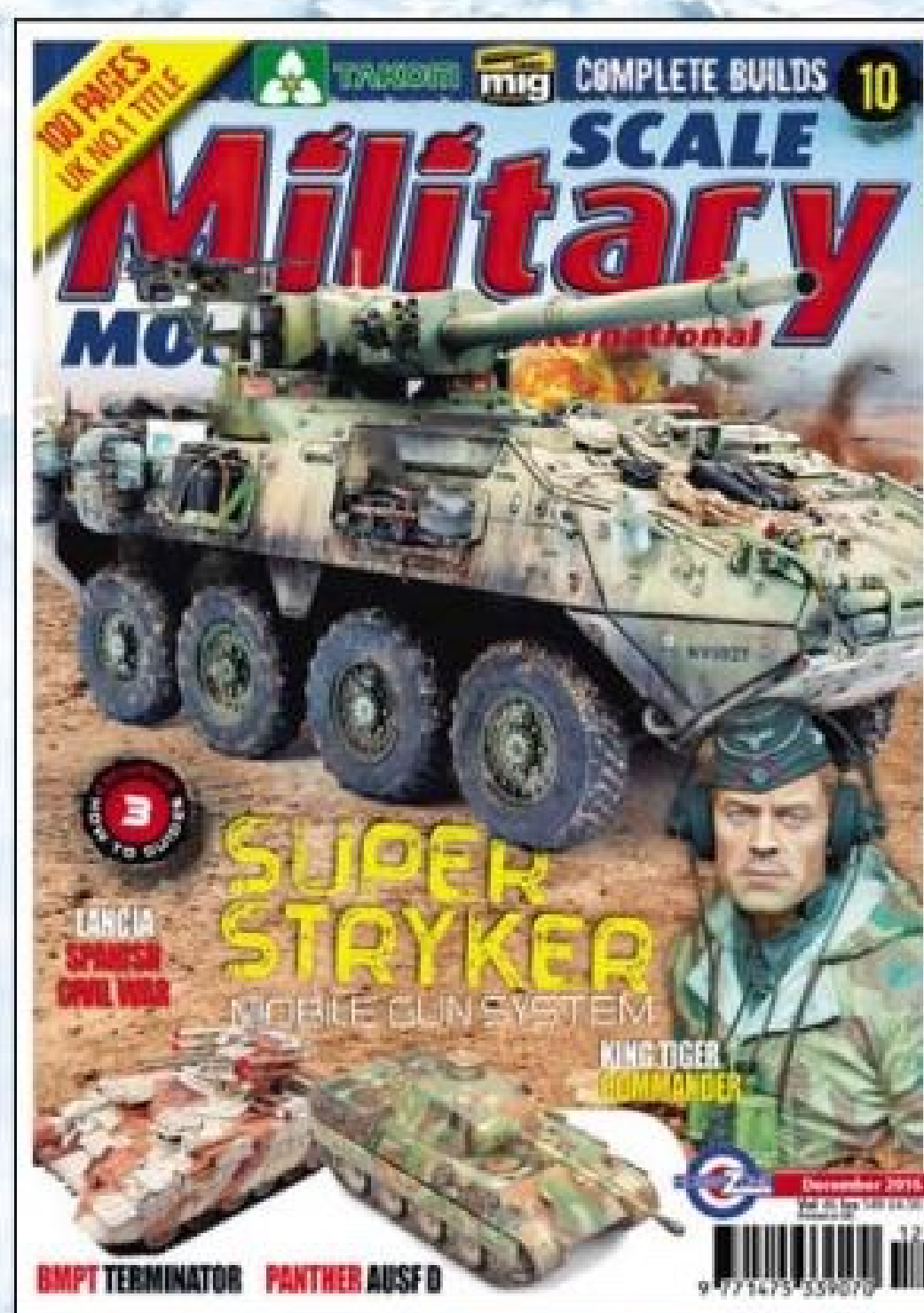
MINIMUM £4. 50



SUBSCRIBER



**to our market
leading magazines...**



Secure online ordering at www.sampublications.com
Order hotline +44 (0)1234 211245



Subscribe for 2 years and you receive a **FREE Gift**

Subscribers'

NOVEMBER PRIZE DRAW WINNERS

Mr Pilon, USA
Mr Jamieson, USA
Mr Bost, USA

Entry to the monthly prize draw is FREE to all subscribers



Magazine Subscriptions

SCALE
Military
MODELLER International

Scale
AVIATION
Modeller International

MODEL
AIRCRAFT

☐ Scale Military Modeller ☐ Scale Aviation Modeller ☐ Model Aircraft

Please indicate the length of subscription required and for which magazine you wish to subscribe by ticking the appropriate box

	UK	EUROPE	WORLD
3 MONTHS	£10	£12	£15
6 MONTHS	£20	£25	£30
12 MONTHS	£40	£50	£60
18 MONTHS	£55	£75	£95
24 MONTHS +FREE GIFT	£75	£95	£115

BINDER

Available to all readers, strong, robust 'Cordex' binders to hold 12 issues of **Scale Aviation Modeller** (in green) or **Model Aircraft** (black) or **Scale Military Modeller** (Blue).

£10

☐ **Scale Military Modeller**
☐ **Scale Aviation Modeller**
☐ **Model Aircraft**



RRP based on UK prices.

Order Form

DELIVERY and PAYMENT

Mr/Mrs/Ms Initials Surname

Address

Postcode/Zip Country

Subscription Reference Daytime Telephone Number

A ☐ I enclose a £ Sterling cheque made payable to 'HobbyZone Limited'

B Please charge my ☐ Visa ☐ Mastercard ☐ American Express ☐ Maestro (Switch/Solo)

Valid From Expiry Date Maestro (Switch)/Solo Iss No

Card Number

Security Code Last 3 digits (4 for Amex) of the Security Number on reverse of card

Signed Today's Date

Payable by • Cheque • Credit/Debit Card • via PayPal to mail@sampublications.com

Please note we now accept US Dollar and Euro cheques made payable to HobbyZone Limited

When paying by credit/debit card, please ensure you include your Security Number as payment cannot be taken without it. Please quote your Sub Ref No if known.
Please allow 28 days for delivery.

Send to:

HobbyZone Limited, Media House, 21 Kingsway, Bedford, MK42 9BJ, UK
Tel: +44 (0) 1234 211245 • Fax: +44 (0) 1234 325927
email: mail@sampublications.com

www.sampublications.com





'Red 2'

James Aston adds a winter finish to the 1:32 Revell Fw 190 F-8 using Alclad II Mil-Spec Enamels and Hogwash

Although not new to the market, this newly tooled Focke Wulf 190 from Revell has been on my to-do list since its release back in 2015 and Revell continue to champion the modellers call for well-engineered kits at affordable prices. The Radial engined Fw 190 has always been one of my favourite aircraft and coupled with my penchant for unusual and interesting camouflage schemes meant that I had to build this in the winter markings of Fw190 F8 1./SG 2 in Hungary 1945. As this option is not available in the box and I could not source any aftermarket markings in this scale I had to mix decals with Montex masks to realise the aircraft in its correct signage. This kit was also to be a testbed for the new range of Airbrush ready Mil-Spec Enamel Paints and Hogwash Washes from Alclad II.

The kit is superbly engineered and with careful clean up and test fitting it goes together quickly, leaving you to focus on the painting and

finishing. The highlight of the kit has to be the wonderfully represented radial engine, cockpit and wheel wells. Although these are more than sufficient in detail to satisfy the enthusiastic hobbyist if you do desire to go further there are aftermarket detail sets available to turn this model into a showstopper. I would recommend getting a set of seat-belts, however I just used



**Fw 190 F-8**

Manufacturer: Revell

Scale: 1:32

Kit Type: Plastic injection moulded

Kit Number: 04869

the decal ones provided in the kit, as I wanted to focus on the painting and weathering on this build and not the addition of details. One area I did use none kit parts were the antennae, gun barrels and pitot tube. I find that Albion Alloys metal tubing is a great way of improving on these

Albion Alloys metal tubing is a great way of improving gun barrels and pitot tubes

areas and is very simple to do, the results are very effective and a lot stronger than the plastic parts. Before I comment on the Mil-Spec paints from Alclad II I have to emphasise how big a fan I am of lacquer based acrylics for their ease of use and quick drying times. These have always lent themselves to my style of painting and finishing of my models. So for enamel paints to get my approval and attention they would have to be something different and special. To see the name Alclad associated with RLM and other colours

as well as enamels is intriguing enough, as we all associate them with their world class metal finishes. So when asked to try out this new range of paints and washes I had inkling that these were going to be something different.

Being airbrush ready they need only be shaken vigorously to thoroughly mix the pigments before spraying at a low pressure. First thing that struck me was the smooth flow and finish of the paint indicative of high quality fine pigments, the coverage and authenticity of the colours was also superb. Nothing prepared me however, for the speed at which the paint dried, most enamels I have worked with in the past need twenty-four hours or longer to harden and





cure. I was simply stunned when two hours later I could not only handle the model but was able to mask the painted area and peel the mask off without damage. To say I am a convert to this new range of paints is an understatement. Being enamel does mean that it precludes certain weathering techniques such as the 'hairspray' method, however you can still use these as a durable base coat if you want to use acrylics over it. For Example when doing the whitewash effects I used white Mil-Spec enamel for the stripes then Acrylic white on top of Ammo of MIG Chipping solution to achieve the distemper effect. After painting I then used the new Alclad II Hogwash to add the staining effects. This requires that you seal the enamel with an acrylic varnish to prevent the wash from damaging the enamel. Alclad II Aqua Gloss is perfect for this as it seals the surfaces with an impervious layer and it also provides a superb level gloss surface for applying the decals.

I found working with these paints and this kit to be an inspirational and enjoyable experience, and surely that is what the main point of



this hobby should be? I applaud Revell for continuing to delight us with affordable top quality kits and Alclad II for broadening their range of products. This has never been a better time to be a model maker and it is good to know that there is a healthy industry aimed at making our hobby more gratifying and productive. **MR**



STEP by STEP



Marineflieger Starfighter

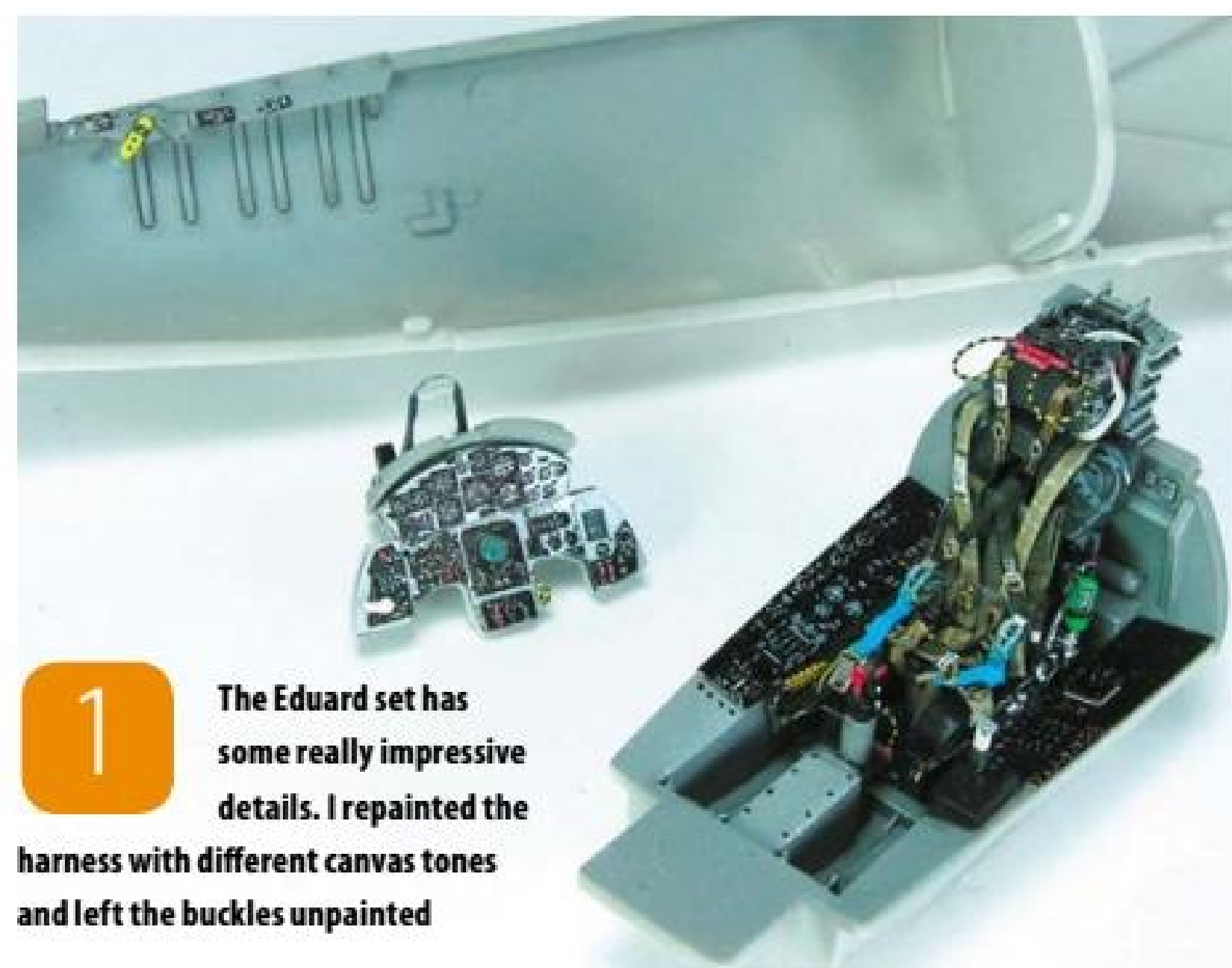
Olivier Soulleys builds the 1:48 Eduard ProfiPack F-104G

The Eduard F-104G is a reissue of the old Hasegawa kit, and unfortunately, you'll find the same wing and stabilisers with recessed rivets lines, which do not exist on the real aircraft. However, DACO comes to the rescue with a Starfighter 'Improvement

Kit'. Here you get an interior for the canopy, an avionics bay with fairing, complete wing, and tip-mounted fuel tanks with fins, and exhaust, and horizontal stabilizer and cockpit access ladder. Eduard also provides a Brassin set for Martin Baker ejection seat and painted etched



for instrument panels. There is a canopy Kabuki mask and a stunning decal sheet with not fewer than five options for German aircraft. So let's get started. **MA**



1

The Eduard set has some really impressive details. I repainted the harness with different canvas tones and left the buckles unpainted



2

The avionics bay and the cover come from the DACO correction kit. The central support is yellow zinc chromate and boxes are painted the same grey of the cockpit. DACO also provide great stencils to enhance the final effect



3

A complete wing with flaps and leading edge devoid of awful rivets are provided by DACO

The Eduard F-104G is a reissue of the old Hasegawa kit



4

Unfortunately, the DACO set tow bar was bent and difficult to straighten, so I made another with brass and aluminium tubes.

The injection moulded access ladder with tubular sections is better than the flat etched one



5

The F-104s German 'NORM 76 scheme' is RAL 7001 Silbergrau undersurfaces....



6

....with RAL 7012 Basaltgrau upper surfaces with a straight demarcation line



7

The intakes were sprayed matt black



8

For the weathering I used oil wash colours, black, dark brown and caramel



9

Pin-pens ideal for shading colours. Just tap on surface with them and blur the stains with a wet brush



10

Airflow effects are done with fine line paper pencils in the direction of airflow



11

Here you can see the effects of subtle weathering on the upper surfaces



13

I used a superb pitot from Master



12

International Orange adds a much needed splash of colour



14

This build represents an F-104 from Marinenfliegergeschwader 1, and was struck off charge in 1981 and sold to Greece



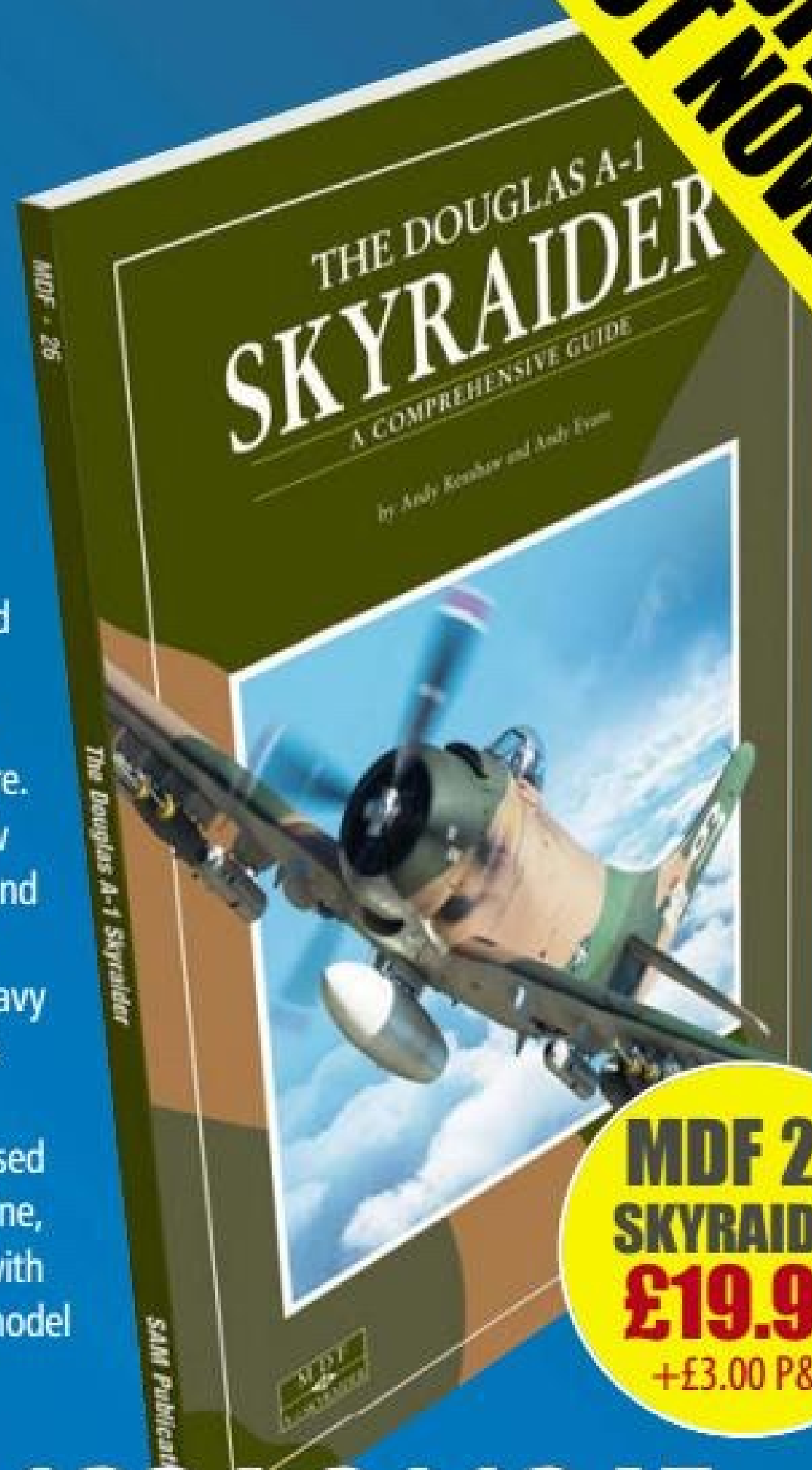
15

The DACO avionics bay adds a great touch of realism

THE DOUGLAS A-1 SKYRAIDER

By Andy Renshaw and Andy Evans

Able to carry a greater payload than a four-engine B-17 Flying Fortress, the single-engine A-1 Skyraider was considered one of the finest attack and close air support aircraft ever built. Skyraider's proved critical during the Korean War and over the jungles of North Vietnam. The airplane that became the AD Skyraider (redesignated A-1 in 1962) evolved from a 1943 Navy decision to combine the dive-bombing and torpedo mission into one aircraft. First flown in 1945, the Skyraider entered US Navy service the following year. Later nicknamed 'Spad' for its 'old-school' design and appearance, reminiscent of the famous World War I aircraft, the Skyraider earned a reputation for ruggedness that not only packed a punch, but also brought back many an airman, despite taking heavy damage from enemy fire. Some AD pilots also trained for an atomic war, practicing long-range flights to deliver nuclear bombs at low altitude. A-1s were also part of the first attacks against North Vietnam following the Tonkin Gulf Incident, and in June 1965, a pair of Skyraiders even shot down a North Vietnamese MiG-17 in air-to-air combat. It was perhaps in the 'Sandy' Combat Search And Rescue role the USAF Skyraider earned most respect, and its heavy payload and long loiter time proved vital in rescue of downed airman in Southeast Asia. The Skyraider was also used by the air forces of South Vietnam, France, Cambodia, Chad and Gabon, and the Royal Navy operated a dedicated airborne early warning version from her aircraft carriers, and the Swedish Air Force used the Skyraider as a target tug. All told, 3,180 Skyraiders rolled off the Douglas Aircraft Company assembly line, and in this new Datafile by Andy Renshaw and Andy Evans; the Skyraider story is brought to life. Packed with many never before seen images, concise text, colour profiles, technical diagrams, scale plans and how to model the Skyraider in popular scales, this book is a must have for the enthusiast and modeller alike.



**MDF 26
SKYRAIDER
£19.99
+£3.00 P&P**



ORDER HOTLINE: 44 (0)1234 211245
ORDER ONLINE: www.sampublications.com

Your Favourite Magazines now on the iPhone, iPad and Android.

DOWNLOAD NOW!

Available from iTunes, Google Play and the App Store.



Download APP
FREE
IN APP ISSUES £2.99

Simply download the Individual Magazine apps and receive a back issue completely free.
Once you have the app, you will be able to download new or other back issues for less than the newsstand price or, alternatively, subscribe to save even more!

Don't forget to register for your Pocketmags account. This will protect your purchase in the event of a damaged or lost device.
It will also allow you to view your purchases on multiple platforms.



MIG Masterclass

Weathering a South American Texan

Mario Serelle shows you 'how to' using Ammo of MIG Products



The world famous North American T-6 Texan had a long service life in Brazil. From 1942 to 1976 this aircraft was used in various different roles, including training, liaison, reconnaissance and light attack duties. If you're not used to building 1:32 kits, you will be surprised with the amount of plastic and sprues in the Kitty Hawk box, however this high parts count has a clear purpose - details! The cockpit alone is made of fifty-plus pieces, including etched seat belts! I mean you can build a entire 1:72 World War II fighter with the same number of parts! Not to mention the complete engine accessories compartment and the nice selection of under wing stores.

After painting all interior components interior green, the fun began. A.MIG-1618 Deep Brown was used wash to accent all recessed details and add some shadows effects and this was followed by a light green dry brushing to highlight the raised ones. The black parts were painted next and these also received a dry brush with neutral grey artist's oil paint and I used A.MIG-033 Rubber and Tyres to create some 'old' chipping around the cockpit,

focusing on the seats. Aluminium was then used to simulate 'fresh' chipping, and both were carefully painted with a small pointed brush. After painting others small parts the cockpit structure was glued together and Kristal Klear provided a glass effect over the instrument panel dials. For the engine, I added a black coat, and then the various components were airbrushed in their appropriate metallic colours using various Ammo of MIG paints. The smaller details were then painted in and A.MIG-1611 Black Night panel wash was used to highlight all details. A Black watercolour pencil was then used to create some scuffs on the crankcase and the engine was done!

I choose to build a Brazilian T-6D from Reconnaissance and Attack Squadron 41, and these aircraft featured a 'bubble' for a machine gun, right in from of the windscreen, and this demanded a small amount of surgery. The



North American T-6 Texan

Manufacturer: Kitty Hawk

Scale: 1:32

Kit Type: Plastic injection moulded with etch

Kit Number: KH32001

FCM Decals #32018 NA T-6 Texan

Painting small scratches on the seats with Rubber and Tyres is a nice start for a weathered look



Painted and weathered the engine is a nice replica of the original Pratt & Whitney R-1340 powerplant



Weathering began with some paint chipping on the wing roots, applied with a sponge



Deep Brown wash was used to add some depth and dirt to the flaps and wheel wells



original part was cut off and a new one, with the 'bubble', was inserted, and then filled with plastic card and sanded smooth. The fuselage halves' fitting is quite good but the upper nose and rear fuselage inserts required some putty and sanding work. The wings built up nicely and their attachment to the fuselage was flawless. The engine air scoops were drilled open for a better representation of the real one. The three-part engine cowl was difficult to put together, so take your time here!



Desert Brown Panel Line Wash was used to accent the details over the tan colour while a Deep Brown Wash was used over the darker green shade

Different shades of Streaking Grime were used to add dirt and leaking fluids



The underside received a Medium Grey Wash



Adding dirt to the fuel tank using Dark Streaking Grime



Kitty Hawk also supplies a five-part canopy, which can be displayed fully open, but I decided to leave only the pilot's part open. The clear parts were then masked and glued into place before the painting started.

After a coat of black primer the first step was to paint the canopy frames interior green to match the cockpit. A 'marbling' coat was created on the underside using light grey for the undersides and tan and light green for the upper surfaces. Off-white was then airbrushed over the fabric-covered areas for a faded look. Brazilian camouflage colours were not common to US or NATO colours, what demanded lot of research and cross-reference

The central wing section received additional dirt using more Streaking Grime.....



The kits high parts count has a clear purpose - details!

....and here is the result



Small scratches and
scuffs were made with
watercolour pencils



Model Aircraft Choice We Recommend

Ammo of MIG Products Used in This Build



- A.MIG-1618 Deep Brown



- A.MIG-033 Rubber and Tyres



- A.MIG-1611 Black Night Panel Line Wash
- A.MIG-191 Steel



- A.MIG-1601 Medium Grey Wash
- A.MIG-1621 Shadow for Desert Brown Wash
- A.MIG-1206 Streaking Grime



work to find the best shades to represent it. These were airbrushed in very thin coats to preserve the pre-shading work, which gave a subtle weathered look to the paintwork. After a gloss coat I applied the decals, which came from FCM, and these went on without any problems. A further gloss coat sealed them in and I moved onto some further weathering work.

Extensive paint chipping around the wing roots was the most noticeable weathering on these aircraft, and these were simulated with A.MIG-191 Steel applied with a sponge on areas with high traffic. Small chips were also applied to all of the flying surfaces, the wing leading edges and engine cowl. I didn't want all those rivets to pop up on the wings and fuselage, so I decided on a subtle approach, using different Ammo by MIG products for each camouflage colour. So the underside received A.MIG-1601 Medium Grey wash and the upper camouflage received A.MIG-1621 Shadow for Desert Brown and A.MIG-1618 Deep Brown washes. These created a very subtle but still visible effect.



The completed underside

Surprisingly I found that the old Texan did not get that dirty, with some dirt and grime mainly seen on the central wing section, and I tried to replicate this accordingly using A-MIG-1206 Streaking Grime. Some dirt was also applied to the engine cowl and accessories access panels around it. A semi-gloss coat was then airbrushed on and watercolour black and silver pencils added the final scratches and scuffs marks on wings and fuselage. The exhaust soot was airbrushed and the drop tank glued in place and this Texan from South America was done!

This is a superb kit of a legendary aircraft, with plenty of options to build it in a variety of colours!

MA



NEW Model
Browning Cal.50
scale 1/32 & 1/48



High Quality
Plastic Model
Kits
in 1/48 scale

High Detailed
3D Printed
Resin Guns

High Quality
3D Printed
Metal Turnbuckles

Upcoming
NEW Molds
Henschel HS 123

NEW Model
MK 108
scale 1/32 & 1/48



Copyright © 2016 GasPatchModels All rights reserved



www.gaspatchmodels.com

Passionate for modeling
—●—
Passionate for quality

SHOP & WEB GUIDE

Promote your company here and appear in all 3 titles – Scale Aviation Modeller International, Model Aircraft and Scale Military Modeller International – with a total 126,000 circulation.
Contact Mark Willey on +44 (0)1234 224992 mark@sampublications.com



Specializing in white metal landing gear

3795 Shady Hill Drive,
Dallas, Texas 75229, USA
+1 (214) 477-7163

www.scaleaircraftconversions.com

GINTER BOOKS

NAVY / AIR FORCE

TEL: (805) 584-9732 FAX: (805) 584-6604 WEB: www.ginterbooks.com
1754 Warfield Circle, Simi Valley, CA 93063, USA

NFAF 217	Curtiss X-55 Ascender	\$24.95
NFAF 218	Lockheed F-94 Starfire	\$39.95
NFAF 219	Republic XF-84H Thunderscreech	\$14.95
NF 97	Martin PBM Mariner	\$52.95
NF 98	Douglas AD/A-1 Skyraider Part One	\$52.95
NF 99	Douglas AD/A-1 Skyraider Part Two	\$55.95
NF 100	"Blue Goose" Command Aircraft	\$35.95
NF 101	Grumman S2FV-2 Tracker Part One	\$46.95

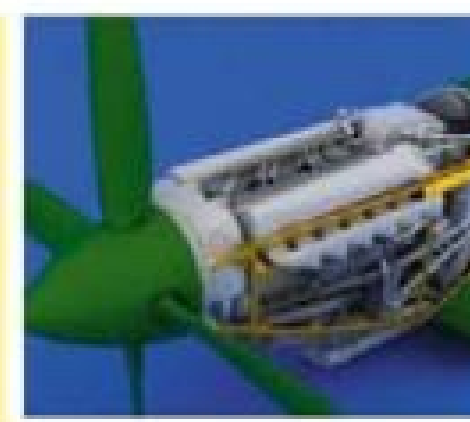


**OXONIANS
PLASTIC
FANTASTIC**

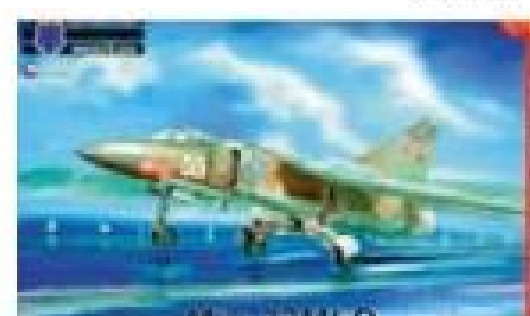
Online Mail order hobby shop
Stores.ebay.co.uk/Oxonians
User Name : Heepdrutt



Expected soon :-
1/32 Special Hobby Tempest II
1/72 Sword Harriers
1/72 Valom Sparrow
1/72 Skyraider AD-5W Re-Stock



www.oxoniansplasticfantastic.com



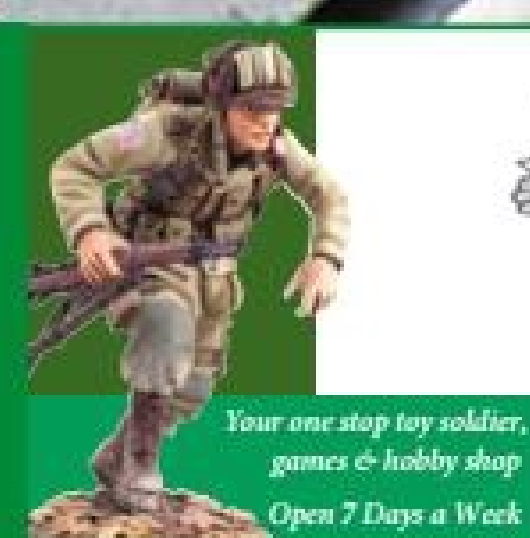
MARCWAY
SCALE MODELS
Sheffield's Specialist Model Shop
0114 2449170
www.marcway.net



Vast selection of plastic kits - Aircraft - Tanks - Military - Ships - Cars - Bikes - Space - Trucks etc
HUNDREDS OF RARE & OBSOLETE KITS
Dioramas - Scenic Materials - Plastic, Metal & Wood sheet and sections - Modelling Tools, Paints, Brushes, Airbrushes & Compressors
Also Model Railways, Die Cast Models and Scalextric

WORLDWIDE MAIL ORDER
598-600 Attercliffe Rd, Sheffield S9 3QS
0114 2449170 Open 10am - 5pm, 6 days
* Situated 2 miles from M1 (junc 34) • 200 yds from Attercliffe Tram Stop

Alley Cat Models
Resin kits, conversions and upgrades
www.alleycatmodels.co.uk



HOBBY BUNKER
Hobby Bunker, Inc.
33 Exchange Street
Malden, Massachusetts
781-321-8855
781-321-8866 (fax)
matt@hobbybunker.com
www.hobbybunker.com

MOTOR BOOKS
The world's oldest motoring bookseller

• AVIATION • BUSES • TRAMS • COLLECTABLES • MARITIME
• MILITARY • MISCELLANEOUS • MOTORCYCLES • MOTORING
• MOTORSPORT • RAILWAY • WORKSHOP MANUALS •

www.motorbooks.co.uk

Rare Kits?

- online inventory
- 5000+ kits in stock
- worldwide shipping

www.oldmodelkits.com

THE HOBBY BOX 121 HIGH STREET, UCKFIELD, TN22 1RN

KITS • PAINTS • GLUES • AIRBRUSHES • TOOLS • STYRENE ETC

Friendly service & advice - Mail Order

Open Tuesday - Friday 10 - 5.30. Saturday 9.30 - 5.00. Closed Sunday and Monday.

www.thehobbybox.co.uk

**01825
765296**



Distributors of
Hobbyboss, Vallejo,
MiG, AK Interactive,
Miniart, Model Master
and many more...

01354 760022

Units 6-10 Honeysome Ind Est, Honeysome Road,
Cambridgeshire, PE16 6TG www.creativemodels.co.uk



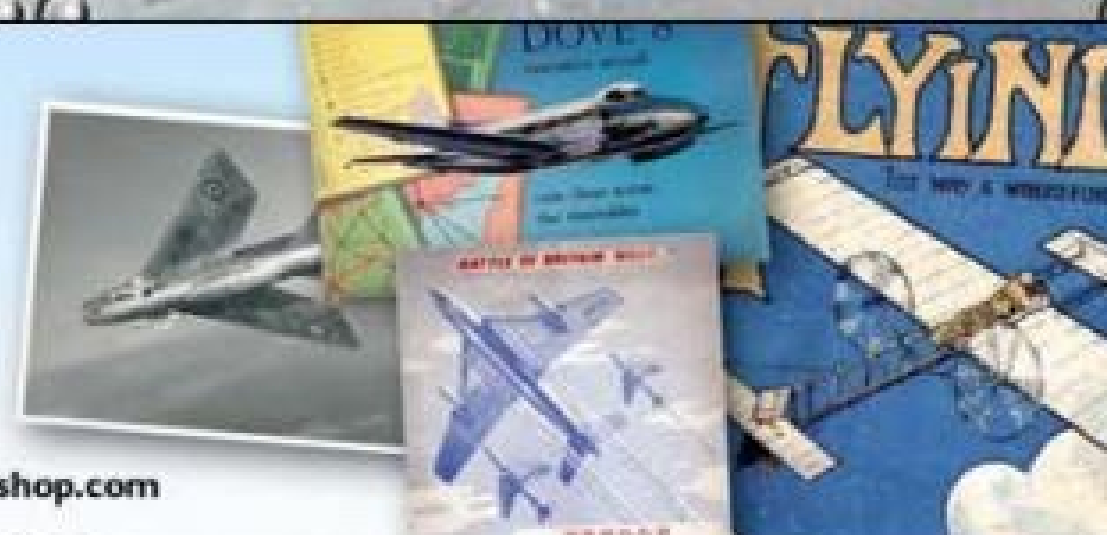
WANTED

Good Quality Aviation Book Collections, Airline & Company Publicity Material,
Aircraft Technical Manuals, B&W Photo Collections, Unmade Plastic Kits

Please contact **The Aviation Bookshop** 31-33 Vale Road, Tunbridge Wells, Kent, TN11 8BS

Shop Hours Monday - Friday 9am - 5pm, Saturday 10am - 5pm, Closed Sundays

Tel: 01892 539284 Email: info@aviation-bookshop.com Visit Our Website: www.aviation-bookshop.com



MODELS2U

At least 5-10% discount off
manufacturer's prices

Fast and friendly service

Easy to navigate webshop

Large range of over 3500 models,
figures, tools and accessories from
Revell, Airfix, Italeri, Tamiya and many
more, ready for immediate despatch

Based in the Midlands since 2001 with
worldwide shipping available

Web: www.models2u.co.uk

Email: help@models2u.co.uk

Phone: 01543 433999

**MEGA
HOBBY**

MegaHobby offers over 35,000 hobby
products, from plastic model kits to detail
sets, from a fully-stocked paint store to all
the tools and accessories.

Browse our website to see the amazing
selection of products we have to offer.
Place an order and we guarantee you will be
a customer for life.

Shipping goods online since 2000!

www.megahobby.com

YOUR FAVORITE ONLINE HOBBY SHOP



MATADOR MODELS
and Airfield Accessories ranges

EXTENSIVE 1/76TH ARMOUR
AND WHEELED VEHICLE KITS
AND CONVERSION RANGES,
FROM WWI TO THE 2000'S
and Airfield Accessories 1/48th. 1/72nd.
1/76th. 1/144th scale ranges of British
and German airfield vehicles and
equipment including ambulances,
refuellers, tractors, G.S. and specialist
vehicles, figure sets etc.

**B W MODELS RANGE OF
MILITARY TRANSFERS**

www.matadormodels.co.uk

SHOP & WEB GUIDE

Promote your company here and appear in all 3 titles – Scale Aviation Modeller International, Model Aircraft and Scale Military Modeller International – with a total 126,000 circulation.
Contact Mark Willey on +44 (0)1234 224992 mark@sampublications.com



Mustang-Hobbies.com
Models, Decals, Books, and Much More!



ALBION ALLOYS
Precision metals for industry
www.albionalloys.co.uk



www.blackbirdmodels.co.uk
52 Holdings Road, Sheffield S2 2RE
South Yorkshire England
Tel: [0114] 2761587 www.blackbirdmodels.co.uk

**If you are
looking at
this...
then it's
working!**

Promote your company here
and be seen in all 3 of our
quality titles – *Scale Aviation
Modeller International, Model
Aircraft and Scale Military
Modeller International* – with a
combined circulation of 126,000!

To be seen in our next issue,
contact **Mark Willey** on
mark@sampublications.com or
Call **01234 224992**



KIT KRAZY
PLASTIC & METAL KIT RETAILERS
HOBBY & PASTIME MATERIALS

**UP TO 20% OFF ALL KITS ONLINE
AND MAIL ORDER**
Incorporating 1,000's of deleted and new kits.
303 The Broadway, Bexleyheath, Kent DA6 8DT Tel/Fax: (020) 8298 7177
ONLY OPEN ON TUESDAYS, THURSDAYS & SATURDAYS 9.30-5.30
www.kitcrazy.com Email: steve@kitcrazy.com
NEW MAIL ORDER LISTS – SEND 70p SAE

Halifax Modellers World
www.halifaxmodellersworld.co.uk
Shop Hours: Mon, Tues, Thurs 10.30-17.30, Fri 10.30-17.00,
Sat 9.30-17.00, Sun 10.30-16.30, Closed Wednesday
HALIFAX MODELLERS WORLD
29 Union Street, Halifax. HX1 1PR
YORKSHIRE 01422 349157



HPM HOBBIES
www.hpmhobbies.com
Secure online ordering
Realtime stock levels
Worldwide shipping
FALCON - JAYS - OZMODS - REDROO
PJ PRODUCTIONS - FCM DECALS

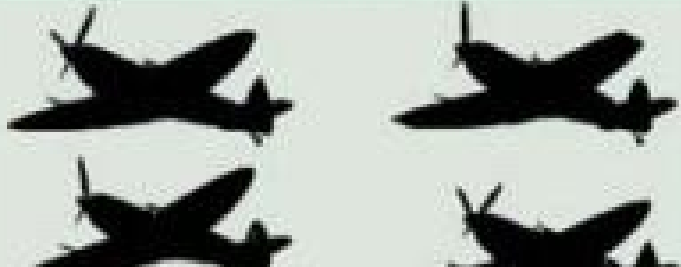
Peddinghaus-Decals
<http://www.peddinghaus-decals.de>

We produce your decals
on request, just asked us
Tel. 0049-2372-503708

REBELL HOBBY
SAAB JA37 Viggen
Swedish Air Force fighter

THE NEED FOR SPEED!
Rebell Hobby, Box 2006, SE-16902 Solna, SWEDEN
www.rebell.com Tel. +46 8 825206 max@rebell.com

City Cycle Centre
We have a large selection of Plastic Kits from Airfix, Revell, Tamiya, Italeri, AFV Club, Academy and more. Also Paint and Sprays from Humbrol, Tamiya, Revell, Vallejo and Games Workshop
CITY CYCLE CENTRE 7 Market Street, Ely, Cambs, CB7 4PB
models@citycyclecentre.com www.citycyclecentre.com
CAMBRIDGESHIRE 01353 663131



MJW Models
ONLINE MODEL SHOP

www.mjwmodels.co.uk
Discounted Prices and Many Special Offers
Orders despatched within 1 working day
Stockists & Suppliers of Model Aircraft Kits, Accessories and Paint Sets by :-
Eduard, LifeColor, MPM, Special Hobby, Sword, Vallejo, and many more
Email us at: mjwmodels@fjandmw.plus.com
Like us on Facebook

ESTABLISHED 2004
Sprue Brothers Models Ltd
spruebrothers.com



FASTEST
Response Time.

What's On Your Radar?

We Probably Have It...IN STOCK!

**ALL Orders Ship WORLDWIDE
In ONE Business Day Or LESS!**



Produced by HobbyZone Limited under licence from SAM Publications

21 Kingsway, Bedford MK42 9BJ
Telephone: +44 (0)1234 211245
Fax: +44 (0)1234 325927
Email: mail@sampublications.com

PUBLISHER SAM Publications

GROUP EDITOR Andy Evans

EDITOR Andy Evans

HobbyZone Limited, 21 Kingsway, Bedford MK42 9BJ

Email: andyevans@sampublications.com

ASSISTANT EDITOR David Francis

ASSOCIATE EDITOR Andy Renshaw

EDITORIAL CONSULTANT Mario Serelle

EDITORIAL CONSULTANT (USA) James DiCesare

EDITORIAL CONSULTANT (EUROPE) Vitor Costa

The above editorial email is ONLY to be used for editorial submissions. It is NOT for subscription payments or queries, back issues or Modellers Datafile orders. Please send all of these to mail@sampublications.com

STUDIO MANAGER / DESIGN Jonathan Phillips

PAGE LAYOUT Andy Folds

SAM PUBLICATIONS EMAIL mail@sampublications.com

Use this address for back issue orders, subscriptions or subscription enquiries or book orders. Note that we cannot undertake research into specific or general aviation queries and that there may be some delays in responses from the contributors, as they are not based at the editorial address.

CONTRIBUTORS James Ashton; Neil Atterbury; James DiCesare; Adam Challinger; Gerry Doyle; Sunhwe Hwang; Anthony Tucker-Jones; Rob Ludlow; Peter Marshall; Olivier Soulleys; Chad Summers

ADVERTISING SALES Mark Willey

Email: mark@sampublications.com Tel: +44 (0)1234 224992

PRE-PRESS PRODUCTION HobbyZone Limited

PRINT PRODUCTION Stephens and George Print Group, UK

DISTRIBUTION COMAG

Tavistock Road, West Drayton, Middlesex, UB8 7QE Telephone: 01895 433777

NORTH AMERICAN DISTRIBUTION BY disticor

695 Westney Rd South, Suite 14, Ajax, Ontario, Canada L7S 6M9 Tel: +1 (905) 619 6565

Contributions and photographic material are welcome, but must be accompanied by adequate postage to cover return. HobbyZone Limited accept no responsibility for loss or damage to materials supplied.

© HOBBYZONE LIMITED 2016

Articles, photographs and drawings published in Model Aircraft Monthly are protected by copyright. Reproduction in whole or in part is forbidden without prior authority of the publishers. Opinions expressed by contributors and advertisers are not necessarily those of the editor or publisher. HobbyZone Limited reserves the right to suspend or refuse any advertisement without giving reasons. Whilst every care is taken to avoid mistakes HobbyZone Limited cannot be liable in any way for any errors or omissions. Nor can the publisher accept responsibility for the bona fides of advertisers.

ISSN: 2046-5386

HobbyZone Limited is a member of



The paper used in this magazine is made from timber sourced from sustainable managed forests; the pulp is ECF (elemental chlorine free); the manufacturing mill is accredited with ISO14001 and EMAS for their environmental controls.

SUBSCRIPTIONS

Cheques/Money Orders in Sterling only made payable to HobbyZone Limited and sent to the address above. Credit card payment accepted by phone. Subscription Hotline +44 (0)1234 211245

AMERICAN SUBSCRIPTIONS

Wise Owl is no longer selling subscriptions on behalf of HobbyZone Limited. Current Wise Owl customers can renew their subscriptions at the current rates directly with HobbyZone Limited: Subscription hotline +44 (0)1234 211245 – we are happy to call you back to take your order! Email ordering and customer support: clare@sampublications.com Website secure online ordering: www.sampublications.com

Model Aircraft, Volume 15, Issue 12, December 2016

(ISSN: 2044-737X) published monthly by HobbyZone Limited, 2221 Niagara Falls Blvd, Niagara Falls NY 14304-5709. Periodical postage pending Niagara Falls NY, U.S. Postmaster. Send address corrections to Model Aircraft Monthly, PO Box 265 Williamsville, NY 14231

QUESTIONS TO CONTRIBUTORS

If you have a question or query you wish to raise with any of the contributors to this magazine, they should be made IN WRITING to the HobbyZone Limited address. Neither the Group Editor nor any of the contributors are at HobbyZone Limited on a daily basis and the Group Editor asks for all enquirers to appreciate this fact and be patient. Please understand that the staff at HobbyZone Limited do not have access to the information you require and therefore cannot answer your questions on the phone. Please enclose a stamped SAE with all enquiries, if you anticipate a reply. Thank you.

SAMPLES FOR REVIEW

Model Aircraft Monthly is always happy to review new books within its pages. Any item which you feel is appropriate will be given due consideration for inclusion in the title. Any company, trade representative, importer, distributor or shop which wishes to have books reviewed within Model Aircraft Monthly should send them directly to the editorial address and clearly mark them for the attention of the Group Editor. Confirmation of receipt of the samples will be supplied if requested. For all international companies etc the above applies, but please ensure that the package is clearly marked for customs as a 'sample, free of charge' to reduce the risk of unnecessary delays. Thank you.

COMPANY/SUPPLIERS ADDRESS DETAILS & GENERAL ENQUIRIES

Please note that the Group Editor and staff at HobbyZone Limited cannot help with general enquiries about contact details for companies, importers or model shops whose products may be mentioned in Model Aircraft Monthly if the address information is not included with the review etc. Please check the advertisements in this journal for all suitable UK sources and only contact the firm directly if it is noted that there is 'No UK stockist'. We are sorry, but we cannot help with details of companies which do not advertise in this magazine. Also note that neither the Group Editor nor contributors will undertake specific or general research for enquirers. Thank you.

COPYRIGHT WARNING

Due to the growing misuse and breach of copyright apparent on the web, HobbyZone Limited hereby gives notice that no-one is permitted to reproduce in any way, (in original form or 'modified'), anything published in this, or previous editions of this magazine. All design, layout and studio photography is the copyright of HobbyZone Limited. All profiles, scale plans and supporting photographs are the copyright of the individual authors. None of these may be used without prior written agreement from both the author/artist and HobbyZone Limited. Infringement is a breach of international law, so if you see items posted on the web from this magazine other than on the official HobbyZone Limited website (sampublications.com) please advise the publisher immediately.

© HOBBYZONE LIMITED 2016

All rights reserved. No part of this publication may be reproduced or transmitted (including posting to a website) in any form or by any means, electronic or mechanical, including photocopy, recording, or any other information storage and retrieval system, without prior permission in writing from the publishers.

MODEL AIRCRAFT IS PUBLISHED MONTHLY BY HOBBYZONE LIMITED
NEXT ISSUE ON SALE 22ND DECEMBER 2016.

MODEL AIRCRAFT

And Finally... Bye-Bye Big Cats!

RAF Cosford paid a special tribute to the SEPECAT Jaguar on August 31st 2016, when veterans of both the Cold War and Gulf War carried out their very last 'live' taxi runs.

An invited audience and members of the media saw some of their number carrying out a series of ground based manoeuvres to mark of both their outstanding service, and their role in training engineering students at the base. As the final tribute four aircraft started up in unison and carried out a final formation taxi around the base before receiving the traditional RAF farewell with a water cannon salute for each of the aircraft



as they made their final journey back to their hangar base. Look out for a full photo-report in a futures issue of Model Aircraft.



Next Month in Model Aircraft – January 2017

Digital Superbug – Sunhwe Hwang adds a unique camouflage scheme to the 1:48 Hasegawa Super Hornet

Combat Edge – F-111 'Aardvark' - with background details and a full 1:48 model build by Garry Prettyman



Big-Windy – Vitor Costa builds a 1:72 US Army Chinook with the Trumpeter kit

Mission Profiles – Colours and markings of the F-5

Brazilian Lizard – Alexandre Alves details the 1:48 AFV Club F-5E kit

Desert Sabre - Jan Sairanen builds a 1:48 Iranian F-86 with the help of some resin and Hi-Decals markings



Combat Zone - 'Hitler's All Rounder' -

Anthony Tucker-Jones profiles Hitler's infamous and very versatile Fw 190 'Butcher Bird'

Hawk-Eyed – Gerry Doyle builds a colourful RoKAF Hawk

Arctic Cat – Angel Exposito brings a winter look to the 1:72 Hasegawa Jaguar

Model Aircraft Extra – E-2 Hawkeye, with background details and a full 1:48 Kinetic build from Jeff Brundt

French Desert - 'Delta Striker' - George Roidis paints and weathers the Kinetic Mirage 2000D using Ammo of MIG products





Oilbrusher

Oil paint with fine brush aplicator for modelling

The most useful range for modelling. 20 different colors.

The new OILBRUSHER is the ultimate and revolutionary modeling product. OILBRUSHER contains high quality oil paint specifically formulated for modeling use, diluted to the perfect consistency to be applied straight from the jar. The cap has an exclusive built-in high-precision brush to apply the color directly onto your model, without having to put the oil paint on a palette or a piece of cardboard. This evolution prevents the oil from drying out and wasting product unnecessarily. Furthermore, the modern container includes a dispenser-cleaner system that removes the excess paint from the brush, leaving just the right amount in the tip. Traditional oil paint tubes were messy to use and difficult to open when the oil paint dries around the cap causing it to become stuck. This doesn't happen with the OILBRUSHER, it is always clean and always stable. Besides all of these advantages, this revolutionary design also saves product and cost in the long run, particularly when considering OILBRUSHER is less expensive than traditional oil paints in the market.

The OILBRUSHER color range includes the most common shades used in scale models, avoiding unnecessary tones that would remain otherwise mostly unused on the bench. This exclusive and innovative range has been developed by Mig Jimenez, well-known for the huge array of innovative modeling paints and weathering products he has developed through the years, such as Filters, Pigments, Washes, Streaking Effects, and Acrylic paints. He now offers a true revolutionary breakthrough in modeling products that makes the modelers' job easier. Panting with oils has never been so fun and simple. OILBRUSHER is your oil paint with built-in applicator brush; a unique and exclusive AMMO product.

Special colors for your mechas.



Flesh colors with superfine brush.



Ready to use. No thinning needed.



Useful for aircraft models.



Clean and fast. Open and use it.



/MigJimenez

www.migjimenez.com

THE
WEATHERING
MAGAZINE



LED Daylight

LED Dome Magnifier

For close-up precision and inspection work

Glass magnifier lens (3x mag.) with LED lights

LightCraft



LC1875 •

RRP

£19.95



Simply push and slide the magnifier across the document, book, photograph or plan to magnify the important information.



Place the dome over a minute object to view the intricate details

SPECIFICATIONS

Plano-Convex Glass magnifier lens,
diameter 6.75cm (2²/₃"

Magnification 3x (7.5 Dioptre)

3 White LED Bulbs-Switch on/off by pressing Dome

Base Diameter: 9.3cm (3²/₅"

Height to top of lens: 4.6cm (1³/₄"

Weight: 146g

Voltage: 3V per battery

(2x CR2016 LiMin batteries included)

Capacity: 75 mAh(23±2°,15KΩ FROM 3V TO 2V)

Working Current: 0.2mA

For details of your nearest stockist, call or e-mail today!
(Trade Enquiries Welcome)

